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# **The Socio-economic Variations in the Provision, Quality and Perceptions of Play Areas in Glasgow**

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**Submitted in fulfilment of the requirements for the  
Degree of Doctor of Philosophy**

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**University of Glasgow  
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## Abstract

In order to examine the possible health implications of outdoor play areas, this PhD used a multi-methods approach to examine socio-economic variations in the provision, quality and perceptions of publicly available outdoor play areas in Glasgow, with the underpinning philosophy that play areas may be used as a locale for children to engage in physically active play.

The locations of play areas were mapped using GIS software and spatial variations were examined by deprivation. A sample (n=100) of play areas in the highest, middle and lowest quintiles of deprivation were visited and an objective quality audit was undertaken assessing their safety and aesthetics. Pupils in P6 (mean age=9.9 years) were recruited from a school in a highly deprived area and a school in an area of low social deprivation. Sixty two “Draw-and-write” activities and four focus groups were conducted with children to investigate preferences for play and benefits and barriers for visiting play areas. Interviews were also conducted with seven play area maintenance men and two mothers to investigate their views on local play provision.

Whilst there was greater provision of play areas in deprived areas of Glasgow, some aspects of their quality were poorer. Children and adults spoke about safety from injury and strangers, and a lack of suitable facilities as barriers to using play areas. Vandalism, misuse and youth disorder were also strong themes in all qualitative research. The barriers for play for children from a deprived area were of a more serious nature compared to children from a less deprived area and those aspects of safety and incivilities which were objectively measured as worse in deprived areas, were also ones that acted as barriers for parents and children. Thus, it is those children who may be in greatest need for free access to safe and healthy play spaces that face more (and often more serious) barriers to play.

Although play areas might provide children with opportunity to be physically active, access to facilities alone may not always mean they are used. Further research evaluating refurbishments to play areas may help to determine whether improvements made to play areas would impact upon their use and physical activity levels of users.

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## Declaration

I declare that, except where acknowledged, all work presented within this thesis has been undertaken by myself.

A handwritten signature in black ink, appearing to read 'CM McAdam', written in a cursive style.

Chloé M. McAdam

# Chapter 1 Introduction

This thesis is based on work I completed at the Medical Research Council Social and Public Health Sciences Unit (SPHSU) following the award of an advertised PhD studentship which was proposed by my supervisors, Professors Sally Macintyre and Nanette Mutrie. It was funded by the Chief Scientist Office Health Directorates at the Scottish Government and supported by the Medical Research Council. The title of the studentship received was “The Health Implications for Outdoor Play Provision”, and as such this thesis looks at play provision from a health perspective.

## 1.1 Aims and Objectives

The main aim of this research was to develop a greater understanding of outdoor play provision and the thesis takes a multi-method approach using Glasgow as a case study to fulfil this. The subsidiary aims were to investigate whether the provision and quality of play areas in Glasgow vary by social deprivation and to explore children’s and adults’ perceptions of outdoor play provision.

## 1.2 Thesis Outline

This thesis is of multi method design and includes both quantitative and qualitative methods in order to develop a better understanding of the play provision in Glasgow. The research questions included two main questions relating to the distribution and quality of play areas in Glasgow and two supplementary, perceptual questions:

1. How does the spatial location and density of outdoor play areas in Glasgow vary by area deprivation? (Chapter 2)
2. How does the quality of such provision vary by social deprivation? (Chapter 3)
3. What do children from socio-economically contrasting areas think about play, outdoor play areas, and their local provision? (Chapter 4)

#### 4. What do adults think about the outdoor play provision in Glasgow? (Chapter 5)

Whilst being complementary, these research questions are very different and, as such, each requires its own approach and review of specific literature. Due to these differences, this thesis is organised differently to the conventional UK standard. To allow a clear account of the research to be presented, each of the traditional 'results' chapters have been lengthened to form small individual study chapters. In situ with the main results, each one of these chapters contains: a literature review; a description of and justification for methods used; and a discussion section. This means that there are no traditional, stand-alone literature review or methods chapters since this information is contained in the four main chapters of the thesis (Chapters 2 to 5). The rest of this chapter details some definitions, a brief background to the study, a discussion of the multi methods approach and ends with a summary of the remaining chapters.

### **1.3 Some brief definitions and clarifications**

#### *Play Areas*

This research is concerned with publicly available outdoor play areas. It does not include school playgrounds since there is already substantial work taking place elsewhere on this topic. In this thesis, play areas are defined as those which do not require an entrance fee and are open to all, for example, ones which you might find near housing or within larger parks. To my knowledge school playgrounds in Glasgow are not generally equipped in the same way a play area might be, and do not have unrestricted access.

#### *Children*

Since Glasgow City Council suggests that play areas are provided for those aged between three and twelve years old (Bennett, 2005), where possible the literature relating to similar age groups has been presented. Where research relating to adults and adolescents has been discussed, this is stipulated. The research presented in this research involved children in Primary six (P6) who were between nine and eleven years old (mean age 9.9 years).

## 1.4 Study Background

In 1990 the Charter of the United Nations recognised the right for children to engage in recreational play in Article 31 of their statement, the Convention of the Rights of the Child:

*“1. States Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.*

*2. States Parties shall respect and promote the right of the child to participate fully in cultural and artistic life and shall encourage the provision of appropriate and equal.”*

(1990).

This statement has since been adopted for use within the mission statements of organisations and charities campaigning for children’s right to play. One such organisation is PlayScotland, who:

*“work to promote the importance of play for all children and young people, and campaign to create increased play opportunities in the community”*

(PlayScotland, 2009 [www.playscotland.org](http://www.playscotland.org)).

The recognition for importance of play has not only been shown by policy and campaign groups, but since stating this research there has been extensive media coverage concerning the belief that children are not playing enough and that this is detrimental to their health and wellbeing. In 2007, UNICEF published a report describing children in the UK as the unhappiest in the developed world (Bradshaw, Hoelscher, & Richardson, 2007; UNICEF, 2007). This prompted a letter to be published in the Daily Telegraph signed by 270 professionals (including 100 academics and health professionals) suggesting that a lack of play was responsible for this poor well being. These signatories were gathered by Palmer who describes the experiences of childhood in Britain as “Toxic” (2006). These, along with the Children’s Society’s “Good Childhood Enquiry”, which was launched at around the same time, all received extensive media recognition.

Since play is a highly emotive and individual issue, it is difficult to identify an all-encompassing definition. In the qualitative research presented in Chapter 5 of this thesis, it was described by a young boy as, *“like the best fun you can have.”* A slightly less child-centred definition is suggested by the Children’s Play Council:

*“Play is freely chosen, personally directed, intrinsically motivated behaviour that actively engages the child.”*

(Children's Play Council, 2000, Pg 6)

This definition has since been applied by the National Institute for Health and Clinical Excellence (NICE) in their scoping review of active play (Cavill & Foster, 2008) and is the one that this thesis identifies with. The Children’s Play Council goes on to describe play and its benefits, some of which are discussed in the next section, more fully:

*“Play can be fun or serious. Through play children explore social, material and imaginary worlds and their relationship with them, elaborating all the while a flexible range of responses to the challenges they encounter. By playing, children learn and develop as individuals, and as members of the community.”*

(Children's Play Council, 2000, Pg 6)

## 1.5 Benefits of Play

The topic of play has been discussed by many academics through the ages, for example by Galen who wrote about children playing with balls made from pigs bladders in Ancient Greece (Cohen, 1987a). Bruner and colleagues also note the variety of disciplines within which play has been studied:

*“Who would dare study play? In fact there have been many ways in which serious men have tried to grasp this antic topic - historical, literacy, clinical, introspective, anthropological, sociological, linguistic, ethological and via controlled experimental methods of the behavioural sciences.”*

(Bruner, Jolly, & Sylva, 1976, Pg 13)

Observation of play by these different groups has led to a number of different suggestions as to why children and other young animals engage in play. One of these put forward is from an evolutionary and cost-benefit perspective, which suggests that the energy and time costs of play mean that it would not have been naturally selected as behaviour unless it offered significant biological benefits (Bruner, Jolly, & Sylva, 1976).

### **1.5.1 Developmental Benefits**

A meta-analysis of observational studies on play concluded that play has a significant positive effect on child development and described the effect size as small to moderate (Fisher, 1992). In another review of the effects of play on child development, Pellegrini and Smith (1998a) reviewed the psychological theories (including those by Groos, Piaget, Vygotsky and Fein, amongst others) which mainly suggest that the benefits of play are not immediately acquired. The authors surmise that an evolutionary perspective suggests that there should be benefits (either immediate or deferred) for children, but describe it as a *“controversial and unresolved topic”* and in need of further research (Pellegrini & Smith, 1998a, Pg 55). Similar to the work by Fisher they conclude that play offers small benefits to development. They suggest the benefits for which there is most evidence include the health benefits from physically active play, dominance skills from rough and tumble play and cognitive development from social and pretend play.

What these theories do not cover is the more immediate benefits that children may get from play including enjoyment, socialising, improved self-esteem and that through play children can learn skills, develop knowledge and explore risk or test boundaries (Children's Play Council, 2000).

### **1.5.2 Active Play**

Pellegrini and Smith (1998b) also suggest that the fact that play contains spontaneous physical activity has often been ignored by researchers in the past. This aspect of play is becoming more important as our knowledge of the benefits of physical activity have expanded and with the current trend of low physical activity levels amongst children. They suggest that physically active play serves

developmental functions. They summarise it through three main peaks in childhood: rhythmic stereotypies (e.g. repetitive body rocking, waving, kicking etc ) amongst babies; physically active play, predominant at around four years of age; and rough and tumble play, peaking between seven and ten years of age. They suggest that each stage of play serves to aid the development and refinement of neuromuscular functions. Improvement in motor skills has also been found in observational studies of outdoor play (Fjortoft & Sageie, 2000).

### 1.5.2.1 Physical Activity

The benefits of physical activity are well documented and there are a number of pathways which physical activity in childhood may affect health. Low levels of physical activity may have negative impacts upon child health directly, for example, through overweight and obesity (e.g. British Medical Association, 2005); Type II Diabetes (e.g. Sinha, Fisch, Teague, Tamborlane, Banyas, & Allen, 2002); the development of risk factors for cardio vascular disease (CVD) (e.g. Andersen, Harro, Sardinha, Froberg, Ekelund, Brage et al., 2006; Department of Health, 2004; Freedman, Dietz, Srinivasan, & Berenson, 1999); poor skeletal health (e.g. Hind & Burrows, 2007); and poor mental health (e.g. Motl, Birnbaum, Kubik, & Dishman, 2004; Mutrie & Parfitt, 1998). There is also limited evidence which suggests that low levels of physical activity in childhood may have a negative impact upon adult health directly through the tracking of such morbidity and that physical activity behaviour may also continue from childhood into adulthood where it may affect adult health (Janz, Dawson, & Mahoney, 2000). NICE recently reviewed this evidence and concluded that:

*“There is a strong rationale for promoting physical activity among children and adolescents”* (Biddle & Cavill, 2007, Pg 4).

This evidence is in accordance with the current guidelines that recommend that children should accumulate 60 minutes of at least moderate physical activity daily, with participation in activities which *“enhance and maintain muscular strength, flexibility and bone health”* at least twice a week (Cavill, Biddle, & Sallis, 2001; Department of Health, 2004, Pg iii). However, there has recently been a suggestion that the recommended 60 minutes should be increased in order for children and adolescents to achieve health benefits related to CVD risk



factors (Andersen, Harro, Sardinha et al., 2006); however, this has not been adopted.

A moderate intensity of physical activity could be achieved through active play amongst children. In fact, children may be more active in play than they are in more structured physical education lessons or sporting activities (Mackett & Paskins, 2004).

#### **1.5.2.2 Levels and Types of Physical Activity in children in Scotland**

The level of physical activity amongst children in Scotland has been measured nationally in the Scottish Health Survey, which uses a self-report and parental proxy report measure of participation in physical activity outwith the school day. The last Scottish Health Survey was in 2003 and data suggests there have been small increases in the proportion of children meeting physical activity guidelines in the five years between surveys (by 4.25% and 4.75% for boys and girls under 12 years, respectively). However, 23% of boys and 31% of girls in this age group are not meeting the current recommended levels to achieve health gains and this gender difference widens as children reach ten years old (Scottish Executive, 2005).

Scottish children are slightly more active than their English counterparts with 2% more girls and 4% more boys being sufficiently active. However, larger differences exist for younger children aged 5-10 years (11.5% more girls and 6.5% more boys are sufficiently active in Scotland) (Scottish Executive, 2005). As an international comparison, in a study involving school children from 35 countries worldwide, the physical activity of Scottish young people (aged 11, 13 and 15 years) was ranked at 11<sup>th</sup> from the most physically active country (Alexander, Currie, Todd, & Smith, 2004).

The most common type of physical activity reported by children in the Scottish Health Survey is walking, closely followed by active play. Over 90% of children under 12 years old reported daily participation in active play with girls and boys of this age spending on average 8.5 hours and 9.1 hours per week in this pastime. The Scottish Health Survey describes active play as: *“active things like ride a bike, kick a ball around, run about, play active games, jump around”* (Scottish Executive, 2005, Chapter 4, Pg.87). Similar high participation rates for

active play were found amongst younger Scottish children involved in the Growing Up in Scotland (GUS) Study. Almost all parents reported that their children had participated in activities like running or jumping, and throwing or kicking a ball in the past week. Sixty-two percent of parents also reported that their children played at a play area or swing park in the week preceding data collection (Marryat, Skafida, & Webster, 2009).

In this thesis, play areas are considered as health enhancing resources since they may provide opportunity for active play and thus help children to meet current recommended levels for health benefits as well as gain the developmental benefits mentioned previously.

## 1.6 Why Play Areas?

There has been little research considering public play areas, although there is an increasing amount of research concerning school playgrounds in the UK (Ridgers & Stratton, 2005; Ridgers, Stratton, & Fairclough, 2006; Ridgers, Stratton, Fairclough, & Twisk, 2007b, 2007a; Stratton, 2000; Stratton & Leonard, 2002; Stratton & Mullan, 2005). However, outdoor play areas may provide an opportunity for engaging in physically active play for a number of reasons. Firstly, children are more likely to be active if they are outside (Baranowski, Thompson, DuRant, Baranowski, & Puhl, 1993; Klesges, Eck, Hanson, Haddock, & Klesges, 1990) and participate in most of their physical activity as sporadic bouts of play (Scottish Executive, 2005; Sirad & Pate, 2001). Additionally, in the US, children's physical activity was positively associated with how close they lived to a play area and the length of time that they spent playing there (Sallis, Bauman, & Pratt, 1998). Among young children in Scotland, those who were most active were more likely to live in areas where their parents reported that there were good or very good facilities for young children (Marryat, Skafida, & Webster, 2009).

The presence of parks has also been shown to benefit health through improving mental well-being, facilitating social interaction or improving social cohesion (Bedimo-Rung, Mowen, & Cohen, 2005; Groenewegen, van den Berg, de Vries, & Verheij, 2006). In terms of all cause mortality and mortality from circulatory disease, people living in areas with greater access to green space in England

were found to have lower health inequality related to deprivation (Mitchell & Popham, 2008). The authors suggest that green space may reduce health inequalities by facilitating participation in physical activity and/or by reducing the negative effects of stress. Whilst not all play areas could be described as areas of green space, some of the benefits of the presence of parks may be applicable to play areas.

## 1.7 Deprivation amplification

The poorer health of those living in poorer neighbourhoods has been observed for over 150 years. In fact, Macintyre cites Edwin Chadwick's report to the Poor Law Commission who, noted that the death rates of three groups of social class were related, not only to their individual social standing, but also to where they lived. "*Gentry and professionals*" were better off in Bath, whilst "*labourers and artisans*" did worse in Rutland, but both groups had higher death rates in Liverpool (Macintyre, 1999, Pg 148). In the last decade, the effects of place on health have been explored by examining aspects of people living there and by the aspects of the neighbourhoods themselves. In an influential paper, Macintyre and colleagues discuss how contextual (those relating to the features of neighbourhoods) differences may have impacts on health through access to various health enhancing or health damaging resources (Macintyre, Macdonald, & Ellaway, 2008b; Macintyre, Maciver, & Sooman, 1993). They suggest that those living in deprived areas may be further disadvantaged by having poorer access to or quality of health enhancing environments - a process they later described as 'Deprivation Amplification' (Macintyre, 2007). One such way in which environments may differ is by their access to play and recreation facilities.

Whilst there is little variation in the physical activity levels of children by area deprivation in the Scottish Health Survey (Scottish Executive, 2005), there are differences amongst younger children in the GUS Study (Marryat, Skafida, & Webster, 2009). The authors report that 29% of the children who they classified as participating in a low level of physical activity were found in areas in the most deprived quintile of Scottish Index of Multiple Deprivation (SIMD) compared to 14% who lived in areas in the least deprived quintile. This pattern was reversed when considering those children who they calculated as highly active. In this case, one plausible explanation is that the provision (and/or quality of

such provision) of resources to facilitate physical activity were worse in areas of high deprivation. This data presented in this thesis investigates whether there is a deprivation amplification effect in the provision, quality and perceptions of play areas in Glasgow.

## 1.8 An Ecological Perspective

Examining the role of play areas for physical activity is in line with recent recommendations that obesity related research should take an ecological approach (Department of Health Public Health Research Consortium, Law, Power, Graham, & Merrick, 2006; Egger & Swinburn, 1997). Ecological refers to the relationships between the environment and the organisms within it (Kaczynski & Henderson, 2007). In terms of behaviour, the social and physical environment may play a role and it is the latter which the research in this thesis focuses on.

Sallis & Hovell's social-learning model of physical activity (1990) describes the roles of various influences upon physical activity behaviour. They suggest that environmental, social, personal, cognitive and physiological factors all play a role in the uptake and maintenance of a physically active lifestyle. The social learning model is based on Bandura's social cognitive model in which he suggests that aspects of the environment may interact with other factors in order to influence behaviour:

*“Social cognitive theory favors a model of causation involving triadic reciprocal determinism. In this model of reciprocal causation, behavior, cognition and other personal factors, and environmental influences all operate as interacting determinants that influence each other bidirectionally. Reciprocal causation does not mean that the different sources of influence are of equal strength. Some may be stronger than others. Nor do the reciprocal influences all occur simultaneously. It takes time for a causal factor to exert its influence and activate reciprocal influences.”*

(Bandura, 1986, Pg 23)

Bandura later suggests that if aspects of the environment strongly constrain or facilitate behaviour then it is likely that the influence of the environment will be dominant over individual factors in determining behaviour (Bandura, 1986). Whilst the environmental correlates of physical activity are only one part of a number of factors that influence the uptake and maintenance of a physically active lifestyle, environmental and policy interventions have huge scope in changing behaviour at a population level rather than at an individual level.

## **1.9 A multi-methods approach**

In order to explore the aims of this research from an ecological perspective, the thesis took a multi-methods approach, using both qualitative and quantitative methods to enhance the depth of data collection. Whilst the stereotypical, antithetical qualities of quantitative and qualitative research pigeonhole the methods into branches of positivism and interpretivism, they can be successfully incorporated into one research project.

Health research has traditionally had a strong positivist tradition, whereby phenomena can be broken down into a series of events with statistically determined causality. There is a strong biomedical research tradition that uses conventional, quantitative and often experimental methods, which at one time led to qualitative research being dubbed as unscientific and unable to add anything of value to scientific knowledge (Horsburgh, 2003; Kirk & Miller, 1986; Mays & Pope, 1996). Qualitative methods are associated with hypothesis generation through inductive reasoning, as opposed to hypothesis testing via deductive reasoning, which is associated with quantitative research. Additionally, qualitative research aims to explain phenomena via gaining views of participants, compared to quantitative research which concentrates upon measurement and statistical rigor. The strengths of qualitative and quantitative research lie in validity and reliability, respectively; qualitative research gaining a theoretical understanding of the social world and quantitative research developing statistical, generalisable results (Mays & Pope, 1996).

Whilst the paradigms of qualitative and quantitative research methods were traditionally regarded as distinct, there has been a recent move to deconstruct this quantitative-qualitative divide (Baum, 1995). There is the suggestion that in

the past there has been an overemphasis on the importance of particular epistemologies (the nature of knowledge and how it can be applied) being related to particular methods rather than taking a pragmatic approach. This pragmatic approach has been described as having a ‘tool-kit’ of methods available (Snape & Spencer, 2003). Using this approach, qualitative and quantitative methods can be used as complementary rather than competing. The most appropriate quantitative or qualitative research ‘tool’ can be chosen based on the research context and questions rather than remaining true to one particular epistemological stance and thus both methods can be used very effectively within the same research project.

## **1.10 Summary**

Play is associated with small, but significant developmental benefits amongst children and participation in active play may help children to achieve the recommended levels of physical activity to gain health benefits. Since children are more active when they are outside and participate in most of their physical activity as bouts of play, outdoor play areas may act as a facilitator for being physically active. An ecological approach and a multi-method design are warranted for exploring whether there are socioeconomic variations in the provision, quality and perceptions of outdoor play areas in Glasgow.

## **1.11 Structure of the Remainder of the Thesis**

The remaining chapters of the thesis are now described:

**Chapter 2** explores the location and distribution of play areas within Glasgow and includes: a review of the literature surrounding the distribution of resources for physical activity and their links with social deprivation and levels of use or physical activity; details of the methods employed to examine how the distribution of play areas in Glasgow varies by social deprivation; the results obtained from mapping these facilities; and a discussion of their implications and limitations.

**Chapter 3** covers the aspect of the research which addressed how the quality of play areas in Glasgow varied by social deprivation. It discusses the current

literature pertaining to the how the quality of similar resources are patterned by deprivation elsewhere, and how the features and quality of play areas may impact on their use. It follows with a description of the audit which was undertaken to assess the safety and aesthetics of 100 play areas within neighbourhoods of high, medium and low deprivation. A description of the results, a discussion of their importance, and recommendations for adaptations to the audit tool to make it suitable for use by policy makers within Glasgow are also included.

**Chapter 4** presents the area of research which qualitatively sought views on play and play areas from nine to eleven year old children attending school in two socially contrasting areas. It includes: a literature review of previous research which has examined children's perceptions of their neighbourhood and opportunities for play; a discussion of the draw-and-write technique and focus group methods used; a summary of the themes generated from these methods and a discussion of their implications and caveats.

**Chapter 5** is the final 'results' chapter and it presents the research which assessed adults' views on play provision. It includes an introduction covering how previous research suggests adult perceptions might influence children's play and follows with a description of the qualitative methods employed to understand views of play area maintenance men and parents; a summary of the results from interviews with these people and a discussion of their meanings and implications.

**Chapter 6** is the final chapter to this thesis and aims to collate the findings from chapters 2 to 5, as well as to draw some main conclusions from the research as a whole. It includes a discussion of the research's limitations and implications, as well as recommendations for further research.

## **Chapter 2    Location and Distribution of Play Areas in Glasgow**

### **2.1 Introduction**

This chapter covers the first stage of the thesis which relates to the provision of play areas in the city of Glasgow and how their distribution might vary between areas of differing social deprivation. This chapter contains an introduction covering a review of the literature pertaining to the distribution of resources for physical activity, a summary of the main aims of the research, a detailed description of the methods employed to respond to those objectives, the full results of this sub-study, a discussion of these results and a conclusion.

### **2.2 Literature Review**

This section covers a review of the relevant literature relating to the socioeconomic and spatial distribution of resources that act as correlates for physical activity. The first section looks at the distribution of resources and links with social deprivation and the second section covers how the availability and access to certain facilities may be correlated with physical activity levels.

#### ***2.2.1 Distribution of Resources and Links with Social Deprivation***

Macintyre (2007) has described a ‘deprivation amplification’ hypothesis based on the inverse care law which suggests that health differences across areas might be explained by poorer access to resources which facilitate a healthy lifestyle. However, research investigating whether there is equitable distribution of resources by area deprivation shows mixed findings. This could be due to the complex nature of urban development, historical and political contexts, the geological features such as rivers or coastlines in different cities and countries as well as the methods employed. Indeed, early research indicated that some neighbourhoods in Glasgow may be further disadvantaged with regards to formal recreation and sports facilities in that the distribution of such amenities was better in neighbourhoods of a higher socio-economic status (SES) (Macintyre, Maciver, & Sooman, 1993), but more recent research suggests that in fact public



swimming pools, sports centres and play areas are more common in deprived neighbourhoods, with tennis courts, bowling greens and private health clubs and swimming pools more common in more affluent neighbourhoods (Macintyre, Macdonald, & Ellaway, 2008b). However, a national study in England found that the most deprived areas had on average four sports facilities less per 100,000 persons compared to the least deprived areas (Hillsdon, Panter, Foster, & Jones, 2007).

Similarly, recreation opportunities, including parks and sports and leisure facilities, were found to be significantly closer to areas of high deprivation in New Zealand (Field, Witten, Robinson, & Pledger, 2004; Pearce, Witten, Hiscock, & Blackely, 2007) and in Perth, Australia (Giles-Corti & Donovan, 2002a; Giles-Corti & Donovan, 2002b). In Melbourne, primary school children who lived in neighbourhoods with a low SES reported living two and a half times further from their nearest park than children living in mid and high SES areas (Veitch, Salmon, & Ball, 2008). Alternatively, other research in Melbourne found more parks and areas of open green space in neighbourhoods with a low SES. However, the trend was not significant when taking into account the populations of the areas (Timperio, Ball, Salmon, Roberts, & Crawford, 2006).

The picture in the USA is mixed and is complicated further by neighbourhood racial segregation. For example, whilst recreation resources were found to be more common in areas of high income and/or with low proportions of ethnic minorities in New York, North Carolina and Maryland (Moore, Roux, Evenson, McGinn, & Brines, 2008) and across the US nationally (Gordon-Larsen, Nelson, Page, & Popkin, 2006), the provision of parks and the free sports facilities within them were compensatory and found to be more common in areas of low income and/or with high proportions ethnic minorities (Moore, Roux, Evenson et al., 2008). However, conversely, in a Mid-Western US city, there was an equitable distribution of facilities which charged an entrance fee by neighbourhoods while low SES areas had fewer facilities which did not charge a fee. (Estabrooks, Lee, & Gyurcsik, 2003).

With regards to playground distribution, research in Glasgow has indicated that there are significantly more play areas in deprived areas of Glasgow (Ellaway, Kirk, Macintyre, & Mutrie, 2007; Macintyre, Macdonald, & Ellaway, 2008b). This

has also been found in cities in the US (Cradock, Kawachi, Colditz, Hannon, Melly, Wiecha et al., 2005) and Canada (Smoyer-Tomic, Hewko, & Hodgson, 2004). However in other cities and countries the relationship between area deprivation and provision is not the same. In Ontario, Canada, for example, no significant associations between provision of play areas and area deprivation were found, but inverse relationships with 'need' for play and provision were found. This measure of 'need' for play provision took into account the population of children, predominant house type (as a proxy for access to a garden) and levels of overcrowding in an area. Although trends were not statistically significant, areas with the greatest need for play provision, had the least play facilities (Gilliland, Holmes, Irwin, & Tucker, 2006).

Research concerning the urban development of Amsterdam suggests that the historical development of a city should be investigated in order to understand the distribution of recreation facilities (Karsten, 2002). In Amsterdam, the health of children of working class families was a major motive in the development of playgrounds which were encouraged by industry leaders and socialist political leaders during the later part of the nineteenth century. Thus, it is not surprising that the majority of the playgrounds that are still present today are in former working class neighbourhoods. Further investment into developing new playgrounds continued even after the 'baby-boom' post WWII, when there was demand for more housing. However, by the 1970's, urban space became competitive and playgrounds became very small, with only one piece of play equipment. The author suggests that more recently further competition for development space has meant that play conditions in the city are poor and that the home has taken over in providing for children's play needs. This historical and political account of urban development of a European city suggests that cities' spatial transformations over centuries may shape play provision. Thus it would be feasible to suggest that Glasgow's economic history may help our understanding of distribution of playgrounds. Alternatively, the natural geography of a city may influence playground distribution, e.g. areas of green space or rivers may shape urban development and thus play spaces. This can be investigated by looking at the spatial distribution of play areas in Glasgow as well as assessing the distribution of play areas by area deprivation.

### ***2.2.2 Distribution of Resources and Links with Physical Activity***

Research on the environmental correlates of physical activity is a growing field, however there is less research relating to children than to adults or adolescents (Bauman & Bull, 2007; Biddle & Public Health Collaborating Centre for Physical Activity, 2007).

Access to suitable areas or equipment for physical activity has been shown to be significantly associated with physical activity behaviour in adults (Bauman & Bull, 2007). The number of pieces of exercise equipment in the home has been found to be correlated with increased physical activity in adults (Sallis, Hovell, Hofstetter, Faucher, Blanchard, Caspersen et al., 1989), but not in children (Sallis, Nader, Broyles, Berry, Elder, McKenzie et al., 1993). The density of neighbourhoods and the number of recreational facilities which had an entrance fee (Sallis, Hovell, Hofstetter, Elder, Caspersen, Hackley et al., 1990), access to parks, gyms and treadmills, (Brownson, Baker, Houseman, Brennan, & Bacak, 2001; Duncan & Mummery, 2005), and safe footpaths (Booth, Owen, Bauman, Clavisi, & Leslie, 2000), have all been found to be correlated with increased physical activity levels amongst adults.

Amongst youth, participation in sport was found to be lower amongst in young people from Glasgow than in those living in Dunedin, New Zealand (West, Reeder, Milne, & Poulton, 2002). The authors note that, except for swimming pools and football pitches, the provision of facilities for most sports and recreation facilities in Glasgow were lower than that of Dunedin. They conclude that neither climate, aspects of the natural environment, nor types of schooling explain the differences in participation in sports, but cultural factors and levels of provision might play a role.

NICE recently concluded that access to facilities is positively associated with physical activity amongst children (Biddle & Public Health Collaborating Centre for Physical Activity, 2007). In young children, the length of time spent outdoors has been linked to increased physical activity (Baranowski, Thompson, DuRant et al., 1993; Klesges, Eck, Hanson et al., 1990; Sallis, Nader, Broyles et al., 1993). The number of play spaces near the home and the length of time that a child spends there is also positively associated with higher physical activity levels in

children (Sallis, Bauman, & Pratt, 1998). Additionally, living closer to play areas was associated with greater participation in physical activity out of school among Mexican American boys but not girls (Gomez, Johnson, Selva, & Sallis, 2004). Similarly, parents of overweight and socio economically at risk children under five years in Dallas who reported not having access to a playground or park reported that their children participated in significantly fewer active play activities than those children whose parents reported that they had access to a play area (Rich, DiMarco, Huettig, Essery, Andersson, & Sanborn, 2005). More parks and recreation facilities present in neighbourhoods have been found to be associated with objectively measured physical activity amongst children aged between four and seven years, and the percentage of total park area within a half a mile buffer zone of a child's address explained 10% of the variance of physical activity levels amongst boys and girls (Roemmich, Epstein, Raja, Yin, Robinson, & Winiewicz, 2006).

In the same longitudinal study, the authors later found that the neighbourhood environment was more important for physical activity amongst boys than it was amongst girls (Roemmich, Epstein, Raja, & Yin, 2007). Correlates of physical activity may be different for boys and girls or at different ages. Hume and colleagues (Hume, Salmon, & Ball, 2005) found that having a television in their bedroom and the number of sedentary pursuits available in the home was correlated with more moderate to vigorous and vigorous physical activity amongst boys, respectively. Whereas, in girls, having a dog in the home was correlated to moderate intensity physical activity and having more physical activity opportunities in the environment was associated with increased low intensity physical activity. Food locations in the local environment were also positively associated with moderate physical activity in girls. These items were investigated by the analysis of children's hand drawn maps of their home and neighbourhood and school. Children did not draw many opportunities for physical activity around the home, although they did draw a number of sedentary pursuits, but this is not to say that they did not have any opportunities for physical activity; it is possible that the children did not consider them important or suitable for inclusion on their map. However, it is imperative to get children's perceptions of their environment, especially when they are its primary users (e.g. with regards to play areas) and this method meant that the children had adequate time to consider their surroundings and become more

involved with the research. The authors also postulate that having a TV in the bedroom may be a sign of higher SES, which is linked to higher physical activity. Nevertheless, this research is consistent with the hypothesis that sedentary behaviours and physical activity are distinct behaviours, with different determinants, and that they can co-exist (Biddle, Gorely, & Stensel, 2004; Gorely, Marshall, & Biddle, 2004; Salmon, Timperio, Telford, Carver, & Crawford, 2005). There is enough time in a day for children to accumulate the recommended one hour of moderate to vigorous physical activity as well as for watching TV or other inactive pursuits. With regards to girls' physical activity, it appears that opportunities in the environment may encourage them to be more physically active, thus suitable playgrounds could help reduce the gender difference in children's physical activity levels.

Despite these findings, not all research shows the expected links between greater provision and increased physical activity. In Melbourne, whilst primary school children living in areas with a high SES were more likely to report living closer to and being active at the park than those in low SES areas there were no significant associations between the distance from the child's home to their nearest park (or the park they usually visit) and use of parks in the previous week (Veitch, Salmon, & Ball, 2008). Other research in Australia found that not perceiving having access to a park was associated with increased physical activity amongst ten to twelve year old boys (Timperio, Crawford, Telford, & Salmon, 2004). Similarly whilst Sallis and colleagues (1990) found that there were significant associations between the density of neighbourhoods and the number of pay-for-use exercise facilities, and the frequency of exercise amongst adults, they found no relationships for free entry facilities. Furthermore, despite having greater access, residents of low SES neighbourhoods in Australia were less likely to use pay-for use facilities than those living in more advantaged locales, even when controlled for income (Giles-Corti & Donovan, 2002a; Giles-Corti & Donovan, 2002b). In terms of the spatial location of facilities for physical activity, Giles-Corti & Donovan (2002a) suggested that as the distance from a facility doubles, its use halves. They suggest that public use of open space was more sensitive to distance than sporting and recreation centres or golf courses and discuss a "decay of distance factor", which they argue accounts some of the relationship between access and use of a facility (Giles-Corti & Donovan, 2002a, p1795). This factor quantifies a person's desire and ability to

overcome distance to access facilities and it is possible that active persons have an ability to overcome barriers of distance. The reasons for people being willing to travel further to recreation centres than to open spaces needs to be investigated to determine if modifications to open spaces would be likely to affect their use. It might be that aspects of cost and quality of services as well as social norms will also be important in determining participation in physical activity.

## **2.3 Aim**

The aim of this section of the PhD was to determine the spatial patterning of outdoor play areas in Glasgow and to investigate whether provision varied with social deprivation.

## **2.4 Methods**

In order to assess the social and spatial patterning of the provision of play areas in Glasgow, the following were required: the precise location of all play areas in the city; base maps of Glasgow on which to map each site; an area based measure of deprivation and population estimates for small area geographies. Whilst in 2003, the play provision in Glasgow was measured (Ellaway, Kirk, Macintyre et al., 2007), since this was prior to the beginning of this PhD, it was important that the data was updated and that it was in a form detailing the exact locations of all sites so that they could be mapped in Geographical Information Systems (GIS) Software and could be visited to assess their quality (discussed in Chapter 3).

### ***2.4.1 Play Area Information***

Although data on the locality of play areas had been obtained by Ellaway and colleagues in January 2003, this information was based on post codes rather than more accurate Ordnance Survey (OS) co-ordinates which would be needed later in order to facilitate finding sites to audit (Chapter 3). Additionally, it was considered that the provision could have altered with regeneration or closure in the two and a half years since data was last collected. A letter was written to Glasgow City Council (GCC) applying for data on the locations of all play areas

that they maintained. Subsequent emails and telephone calls were also sent to various members of staff in different departments before the data application was granted and the necessary files were received in October 2005 (over 5 months from requesting the data). The city council sent an ArcGIS file containing the (OS) co-ordinates for the exact location of all outdoor, public, play areas that they maintained and a shape file showing an outline of the GCC boundary. These were then converted for use with the software MapInfo, since that was the GIS software available for use within the Unit at the start of this research. Although most analysis was conducted in MapInfo, analysis calculating network distances, which is not a function provided in Mapinfo, were performed in ArcGIS, at a later date.

The majority, if not all, of play areas in Glasgow that do not require an entrance fee and are open to all members of the public are maintained by the city council, including those provided by or in partnership with Glasgow Housing Association (Boyle, 2005). However, it is important to note that some play areas may have been missed if they were not maintained by GCC, for example those provided at restaurants or those that require an entrance fee. School playgrounds were deliberately not included in the analysis as it was believed that they would not be open to all members of the public with unrestricted access. For example, school playgrounds may not be open outwith school hours and there may be restrictions on their use during the school day. Additionally, it is our understanding that school playgrounds in Glasgow are not equipped in the same way that a play park would be; i.e. with swings, slides or climbing frame etc. Furthermore, substantial work has already been completed concerning school playgrounds in the UK (Ridgers & Stratton, 2005; Ridgers, Stratton, & Fairclough, 2006; Ridgers, Stratton, Fairclough et al., 2007b, 2007a), but there is little research literature concerning public play areas despite the public funds (approximately £1million/£9 per child in Glasgow - (McKendrick, Byrne, & Hunter Blair, 2007))-that are required for their maintenance and the recent, extensive political and media coverage promoting the benefits of outdoor play.

In data file received from GCC there was some information detailing what type of play facility was present at each location. These data were not fully complete, but did show that there were swing parks, Bicycle Motor Cross (BMX) tracks, skate parks, sports pitches and/or courts including more modern multi-

purpose games courts (MPGC) and ‘kick about’ areas. ‘Kick-about’ areas are spaces of grass or tarmac which are maintained for children to play in. As their name indicates, they predominantly facilitate football related play. All of these facilities were included in the analysis since, despite targeting different age groups, they are all provided and maintained with the intention of children playing there.

## **2.4.2 Measuring Deprivation**

In order to choose an area measure of social deprivation for Glasgow, the Scottish Index of Multiple Deprivation (SIMD), its Income Domain score and the Carstairs Index were compared (McLoone, 2004; Scottish Executive, 2004b).

### **2.4.2.1 Carstairs and Morris Index**

Carstairs scores were first created based on the 1981 census data for Scotland by Carstairs and Morris (1991) and then updated after the 1991 and 2001 censuses by McLoone (2004). Carstairs and Morris describe their purpose in creating the score as follows:

*“Our approach attempts to locate areas (and populations in them) on a dimension which reflects the access people have to material resources to which (to quote Townsend) ‘permit individuals to play the roles, participate in relationships and follow the customary behaviour which is expected of them by virtue of their membership in society’.” (Carstairs & Morris, 1991, Pg. 4)*

Carstairs Scores are calculated on the basis of individuals (rather than households) resident in a post code sector. A post code sector is part of a full unit post code, which are organised by Royal Mail in order to facilitate postal delivery. In Scotland, there are 1,010 post code sectors which have an average population of 5000 residents, although population varies considerably (ISD Scotland, 2009). A full post code (e.g. G12 8RZ) is made up of the four following parts and it is the first three which make up the post code sector (e.g. G12 8):

G	12	8	RZ
Area	District	Sector	Unit



The Carstairs scores are calculated by combining the z-scores of four variables and the final score is reported (also as a z-score) for a post code sector. Although Carstairs scores are based on the characteristics of individuals, the score is not a measure of individual deprivation or affluence, nor a summary of the population living within a post code sector, but scores are a measure of relative area deprivation. The four variables combined to make up Carstairs scores in 1991 were: levels of overcrowding; the proportion of economically active men who are seeking employment; the proportions of people living in private homes which have a head of household in social class IV or V of the Registrar General's Social Classes; and the proportion of people in private households with no car (Carstairs & Morris, 1991). The updated Carstairs Scores from the 1991 and 2001 censuses were calculated in a similar way, but due to changes in the way overcrowding and social class are measured, some alterations were made. In the Carstairs Scores from 2001, the National Statistics Socio-Economic Classification (NS-SEC) was used and aggregated into categories which matched those of the Registrar General's Social Class. Carstairs Scores are often reported as seven DEPCATs (Deprivation Category) which range from one (most affluent) to seven (most deprived). DEPCATs are arbitrary class boundaries which have an unequal population distribution, but they were calculated by Carstairs and Morris (1991) in order to maintain the discrimination between the characteristics rather than to have equal numbers in each category.

One of the disadvantages of the Carstairs Index is that since it is calculated on data from the Census, it can only be updated every ten years. Additionally, post code sectors vary in geographical size and population and can be heterogeneous in terms of their social characteristics, which results in the majority of Scotland's post code sectors falling into DEPCATs 3 to 5. They also do not fit neatly into administrative boundaries, and as such the city of Glasgow contains some partial post code sectors.

Glasgow is relatively deprived in relation to the rest of Scotland, and so using the original DEPCATs to compare areas within the city would not represent the distribution of deprivation within Glasgow. In order to measure deprivation using Carstairs, quintiles of Carstairs Scores of post code sectors within Glasgow were created. This is contrary to the methods employed by Carstairs and Morris

(1991), but is recommended by ISD Scotland (Bishop, Clark, Harris, Stockton, Sutton, & Shack, 2004).

#### **2.4.2.2 Scottish Index of Multiple Deprivation (SIMD)**

The Scottish Index of Multiple Deprivation (SIMD) is a weighted, area based measure of relative, multiple, deprivation based on 31 different indicators across six domains: Current Income; Employment; Health; Education, Skills and Training; Geographic Access and Telecommunications; and Housing, which are combined to create an overall rank for the SIMD. The data are collected from various sources including Census data. It is based on small areas called data zones, which are geographical units with a mean total population of 750 residents and were created by examining primary school catchment areas and then combining similar 2001 Census output areas. They are designed to be homogeneous in terms of social characteristics, to have quite a compact shape, to fit into local authority boundaries and to take account of other underlying geographical features. They also provide a constant and common geography to report and monitor deprivation and other features by. There are 6505 data zones in Scotland and 694 are within the Glasgow city boundaries.

The domains scores are ranked from 1 to 6505 in order to create a standardised scale on which to combine all domains. The domains are then transformed exponentially, before being weighted. The two domains that are weighted the most in SIMD are Current Income and Employment and this reflects the robustness of the data and the academic literature on their subjects. The domains are incorporated into SIMD in the following order, Current Income; Employment; Health; Education, Skills and Training; Geographic Access and Telecommunications; and housing with the ratios of 6 : 6 : 3 : 3 : 2 : 1 (Scottish Executive, 2004a).

The SIMD ranks data zones in Scotland from 1 to 6505, with 1 being the most deprived in relative terms. Since data zones are substantially smaller than post code sectors, and are designed to be more homogeneous in terms of social characteristics, 'pockets' of deprivation can be identified. Similarly by looking at the play provision per data zone, rather than per post code sector, concentrations of low or high density of play areas can be identified.

Since the SIMD is a relative measure of deprivation, it is not possible to say how much more deprived one data zone is compared to another, but only that it is more deprived. For this reason, quintiles, deciles and percentages are often used in reporting results. Relative to the whole of Scotland, data zones in Glasgow are more deprived such that the city of Glasgow contains almost half of the areas located in the most deprived 10% of data zones (Scottish Executive, 2004a). In order to compare data zones within Glasgow rather than to other areas in Scotland, it was necessary to create quintiles which rank the deprivation of Glasgow only (SIMDgla).

One of the domains in SIMD concerns Geographical Access and Telecommunications. It is calculated from drive times to five amenities: a GP, supermarket, petrol station, primary school and post office. The justification for including this domain in SIMD is that;

*“it captures a set of problems such as financial cost, time and inconvenience that operate at an area level and are seen by many as problems in their own right.”*

(Scottish Executive, 2004a, Pg. 18)

Although this domain does not include access to play areas as one of its indicators, the access to the amenities it does include, or their underlying causes (other than deprivation), may be correlated to the access to play areas. Thus, it might not be sensible to use a measure of deprivation as an independent variable which includes measures which are essentially similar to the dependent variable. For this reason, deprivation will also be measured by the Current Income Domain Score individually when analysing the relationships with play provision.

#### **2.4.2.3 SIMD Current Income Domain Score**

The Current Income Domain identifies the proportions of people living within a data zone that are affected by income poverty. The domain is a sum of eight indicators based on the proportions of adults and children resident in households which are in receipt of various, non-overlapping low-income benefits including: Income Support; Income Based Job Seekers Allowance; Working Families Tax Credits; and Disability Tax Credits. The income domain score has been used to

measure deprivation in other studies examining access to resources (Macintyre, Macdonald, & Ellaway, 2008b). As with SIMD, quintiles of the Current Income Domain Score were calculated for Glasgow rather than using the ranks and quintiles produced for Scotland only (Income DomainGla).

For consistency with the sampling used in the later chapters, the analysis of provision results is primarily reported using SIMDgla. This is also consistent with requests of the Scottish Executive which would like to have a standard measure of area based deprivation in research and policy. The provision is also analysed by Income DomainGla and CarstairsGla to determine whether they produce similar or different findings as a form of sensitivity analysis.

### ***2.4.3 Measuring Population***

In order to control, to some extent, for the level of need for play provision, the total population and the population of children in each data zone or postcode sector were used. Mid-year population estimates for 2004 were obtained from Scottish Neighbourhood Statistics (2005). These estimates give total population and also population broken down by age and so the population of all children, and those aged less than 10 years, were downloaded since play provision may specifically be targeted at this younger group. By measuring the population of children only, areas where there are high populations of elderly people (such as retirement villages) or data zones with a high total population due to people resident in communal establishments, such as hospitals, jails or hostels, will not adversely affect the analysis. When using postal code geography and the Carstairs Scores, the sum of the populations of data zones within each post code sector was calculated using the same mid year estimates. Post code sectors and data zones were linked using look-up tables (Scottish Executive, 2004c).

### ***2.4.4 Base Map Geography and Calculating Network Distances***

‘Base maps’ of data zone polygons and postal code geographies for Scotland were obtained from the Scottish Executive (2004c) and Ordnance Survey (2006) via DigiMap, respectively. These were converted for use with Mapinfo. A city boundary polygon was obtained from GCC and it was used in MapInfo to determine exactly which data zones and post code sectors fell within Glasgow.

Using the boundary and inverse select tools in MapInfo all data zones and post code sectors outwith the boundary for Glasgow were selected and deleted so information on Glasgow could be investigated in isolation.

The shortest street network distance to the closest play area was calculated from the centroid of every data zone in order to account for access to facilities in neighbouring data zones. This was calculated in ArcGIS using a street map of Glasgow from Ordnance Survey MasterMap (2006).

### **2.4.5 Analysis**

All play area Ordnance-Survey co-ordinates were geo-coded in Mapinfo using the British co-ordinates system. This meant that the data zones or post code sectors in which play areas were located could be identified. By editing the tabular information in MapInfo, deprivation and population information were added to each play area ID, linking by their respective geographical areas. MapInfo maps are developed in layers and thematic maps can be produced based on information provided in the tables. A map was created with a colour grading of data zones to show their quintile of deprivation (SIMDgla) whereby the darkest areas indicated greater deprivation. On top of this, three thematic maps showing the density of play areas were also created showing the numbers of play areas per data zone, the number of play areas per data zone per 1000 persons, and the number of play areas per data zone per 1000 children as circles which increased in size as the density of play provision increased.

All statistical analyses were conducted in SPSS Version 14.0. The differences in the mean number of play areas per data zone by quintiles of deprivation (as measured by SIMDgla, Income DomainGla and CarstairsGla) were assessed using Analysis of Variance (ANOVA). The number of play areas present per data zone and post code sector were divided by the total population, population of all children and population of children aged less than ten years, and multiplied by 1000, in order to compute the density of play provision per 1000 persons, 1000 children and 1000 children aged less than ten years, respectively. The mean number of play areas per 1000 persons and children were then compared across quintiles of the three measures of area deprivation using ANOVA. The mean street network distance to the nearest play facility was compared across

quintiles of SIMDgla and Income DomainGla using ANOVA whilst the percentages of data zones which contained at least one play area were compared across quintiles of SIMDgla and Income DomainGla using the Chi Square statistic. The last two measures of provision were not calculated for post code sectors and thus not compared across quintiles of CarstairsGla since most post code sectors contained a play area due to their increased size.

## 2.5 Results

### 2.5.1 Types of Facilities

At the time of this analysis there were 573 play facilities in the city of Glasgow that were provided for public use with no entrance fee. These included swing park type play areas equipped with play apparatus such as swings, slides or climbing frames; sports pitches or courts; skate parks; BMX tracks; Multi-Purpose Games Courts (MPGC) which are more modern, enclosed courts with markings, nets and goals for football, basketball or netball and ‘kick-about’ areas. Of the 573 play areas in Glasgow, the majority were swing parks (N=496) and the second most common type of facility were ‘kick-about’ areas (N=53). The types of facilities provided by GCC across quintiles of deprivation can be seen in Table 2.1.

**Table 2-1 Table of the total number and types of play facility provided by GCC across quintiles of deprivation (SIMDgla)**

Quintile of Deprivation (SIMDgla)	Total number of each type of play facility						
	All play facilities	Swing parks	Sports pitches or courts	MPGCs	‘Kick-about’ areas	Skate parks	BMX tracks
Low Deprivation	69	62	0	0	7	0	0
Mid-Low Deprivation	73	60	1	5	7	0	0
Middling Deprivation†	132	119	0	3	9	0	0
Mid-High Deprivation	148	124	0	7	14	2	1
High Deprivation	151	131	1	3	16	0	0
Total	573	496	2	18	53	2	1

†The type of play area was unknown for one facility

### **2.5.2 Maps**

A number of maps were produced to show the relationships between provision of play areas, deprivation and population levels, thematically. From these maps it is possible to see areas of the city where provision is concentrated or lacking as well as examining the relationships between provision, population and deprivation, visually.

Figure 2.1 shows data zones in Glasgow with their quintiles of deprivation represented by a green colour grading with the darkest areas having the highest deprivation and the palest areas indicating the lowest levels. This shows the north west of the city (“the West End”) as having relatively low deprivation along with areas in the south and north east. There are large areas of high deprivation in the east of the city as well as further away from the city centre, where the city’s poor were re-housed into ‘new towns’ in the 1960s. There are also areas with high deprivation concentrated along the River Clyde running through the centre of the city, which may be a remaining attribute of the city’s industrial history. It is worth reiterating that since these are quintiles of deprivation based on Glasgow’s SIMD, these areas are extremely deprived in relation to the rest of Scotland. The map also shows purple circles indicating the exact location of all play facilities. From this map it is clear why it was important to choose the street network distance to the nearest play facility as one of the measures of provision as there are data zones without a play facility within their boundaries, but have access to many facilities in neighbouring areas. In some parts of Glasgow, such as the north west of the city, the map shows high concentrations of provision, such that there appears to be multiple play areas within very small geographical areas. These may be due to multiple facilities situated within one larger park, such as a swing park, bmx track and MPGC all next to each other; or alternatively it is possible that there are errors in the data provided by GCC. For example, it might be that some play areas have not been taken from the list of provision when they were removed, or that sites may have been double counted. Without visiting play areas, it is not possible to authenticate the accuracy of the data supplied by the council. (This type of validation exercise is known as ground-truthing and is discussed further in Chapter 3). There are also some areas, especially in areas with low deprivation, where provision is lacking, such as in the south of the city and in

data zones near the city boundary, however since the population is not defined in this map we cannot assess whether there is a requirement for play provision in these areas.

Figure 2.2 shows data zones in Glasgow with their quintiles of deprivation represented by a green colour grading with the darkest areas having the highest deprivation and the palest areas indicating the lowest levels. The density of play areas is depicted by purple circles which graduate in size as density increases.

Figure 2.3 shows data zones in Glasgow again with their quintiles of deprivation marked by the aforementioned green shading and the density of play areas whilst controlling for the total population is shown by red circles which graduate in size. The larger red circles indicate a higher mean number of play areas per data zone per 1000 persons. The overall pattern of provision is similar to that when population was not taken into consideration (Figure 2.1), which is possibly due to the fact that data zones are designed to have a similar population. Areas in the lowest two quintiles of deprivation (lighter green) appear to have less provision, even when controlling for population levels.

Figure 2.4 shows data zones in Glasgow and is similar to the map shown in Figure 2.3 except that the density of play areas is shown whilst controlling for the population of children resident in each data zone. As the blue circles increase in size, the density of provision of play facilities per 1000 children per data zone increases. Whilst this map still shows areas with low deprivation having fewer play facilities even when controlling for the population of children, the north of the city appears better provided and there are two concentrations of high levels of play provision per 1000 children here. The extent of the high levels of provision when controlling for total population, seen in Figure 2.3, are diminished in this map.

The associations between deprivation and provision were tested for statistical significance, but perhaps what these maps show is more important: that whilst play provision may be patterned by deprivation or population, the relationship is most likely to be much more complex. There are historical, political and environmental factors which will play a role in the development of the city of Glasgow and hence the locations of play facilities.



Figure 2-1 Map of Glasgow City showing all play facilities across quintiles of deprivation (SIMDgla)

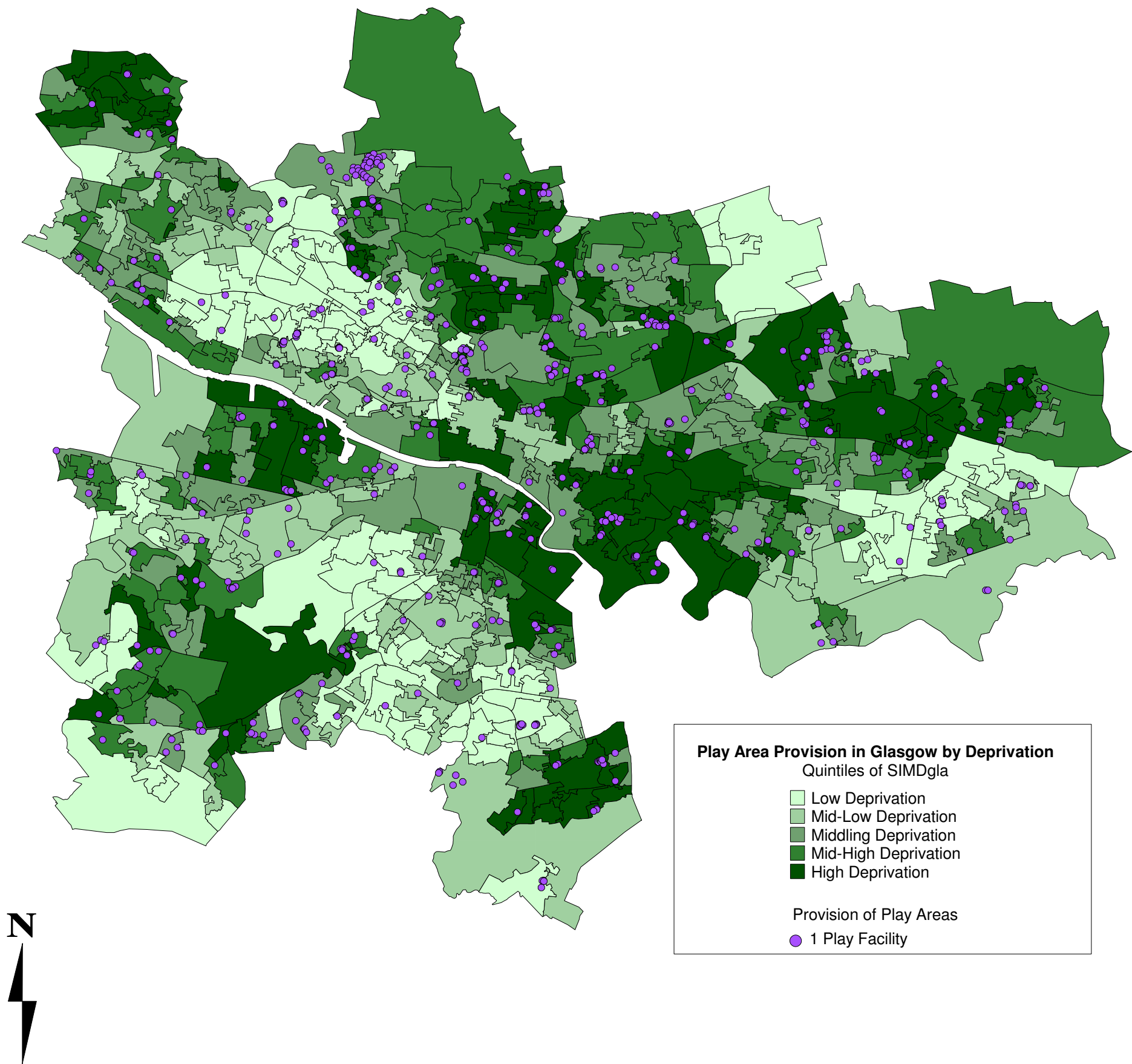


Figure 2-2 Map of Glasgow City showing the density of play provision across quintiles of deprivation (SIMDgla)

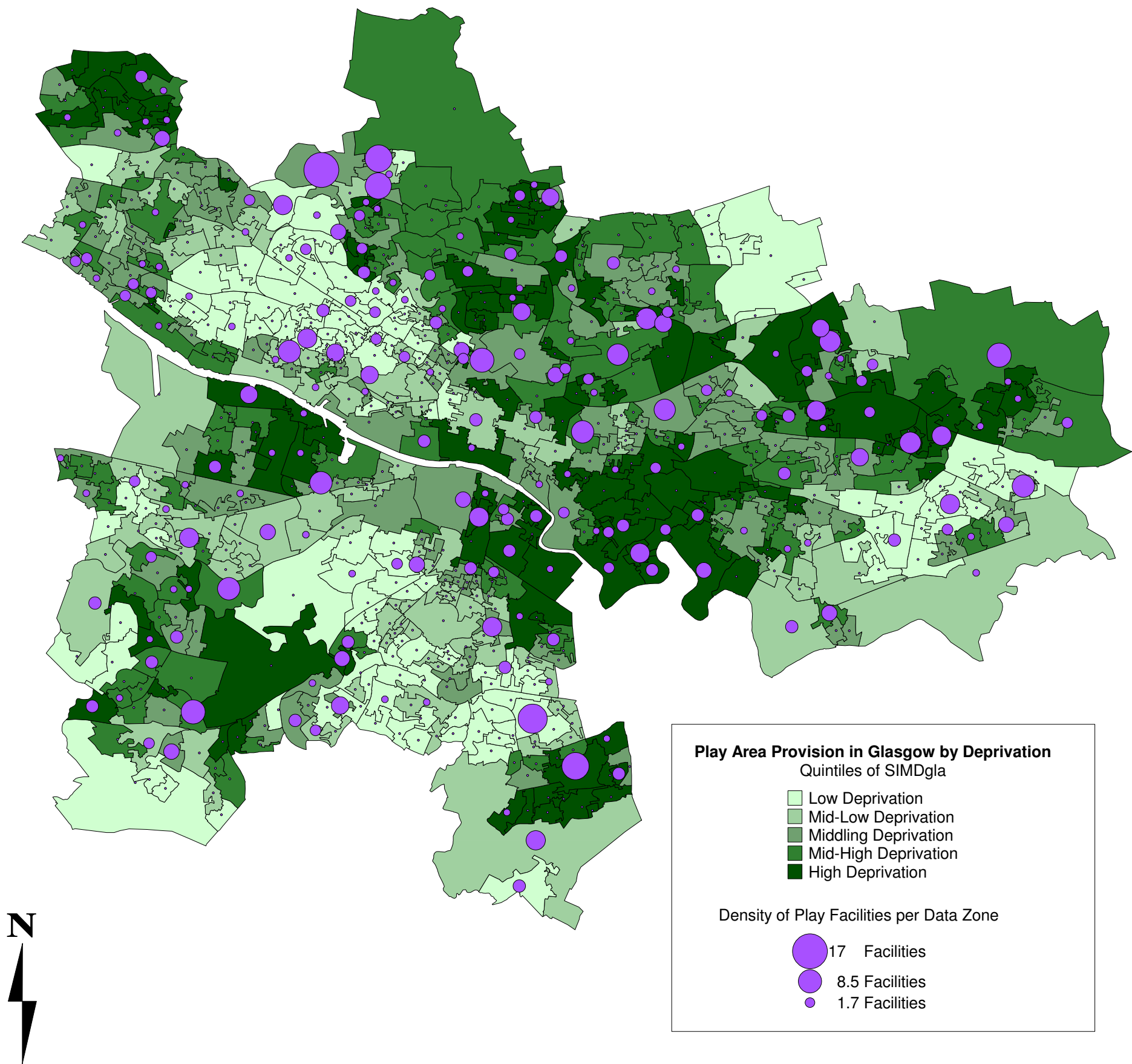


Figure 2-3 Map of Glasgow City showing the density of play areas by total population across quintiles of deprivation (SIMDgla)

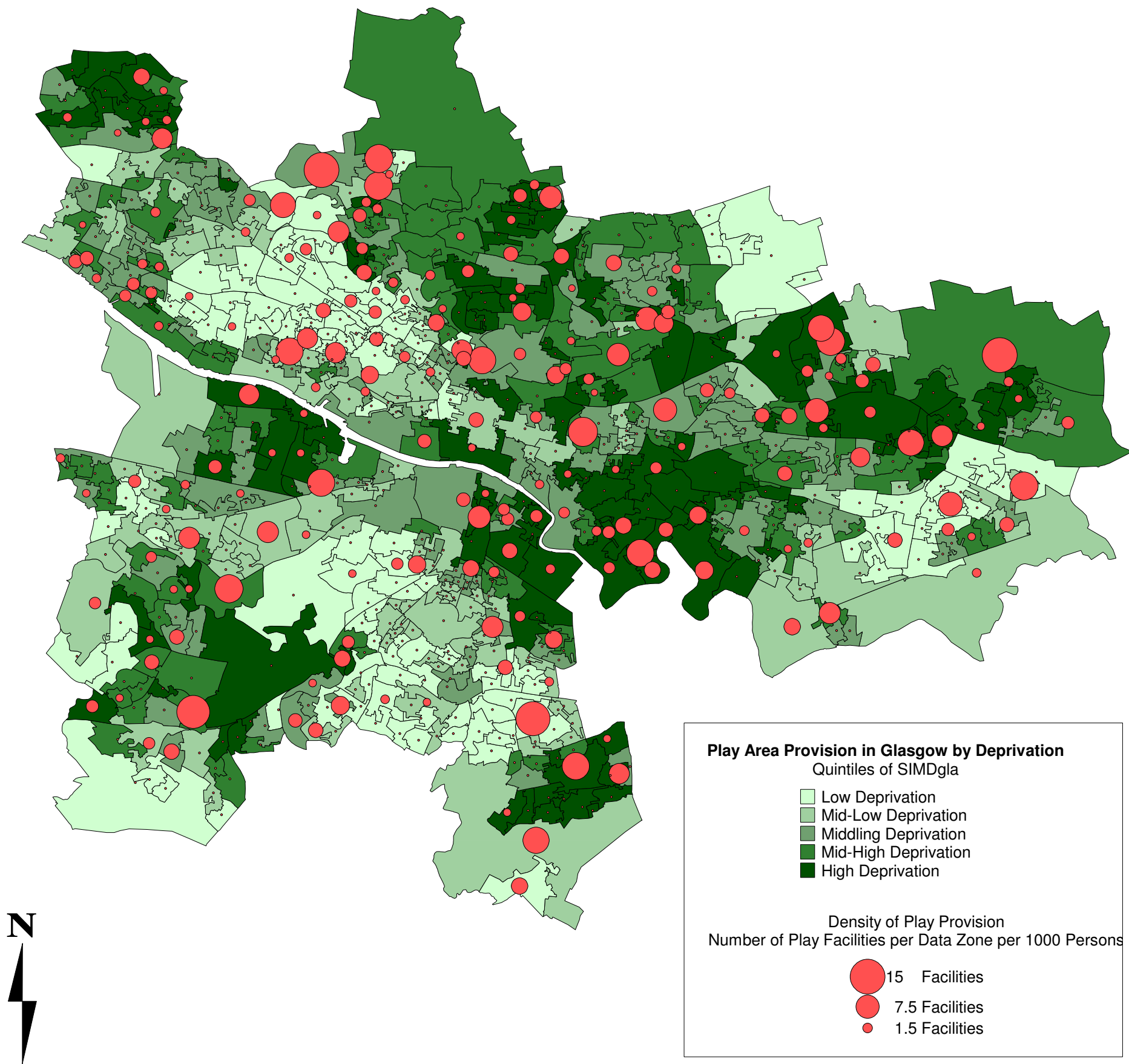
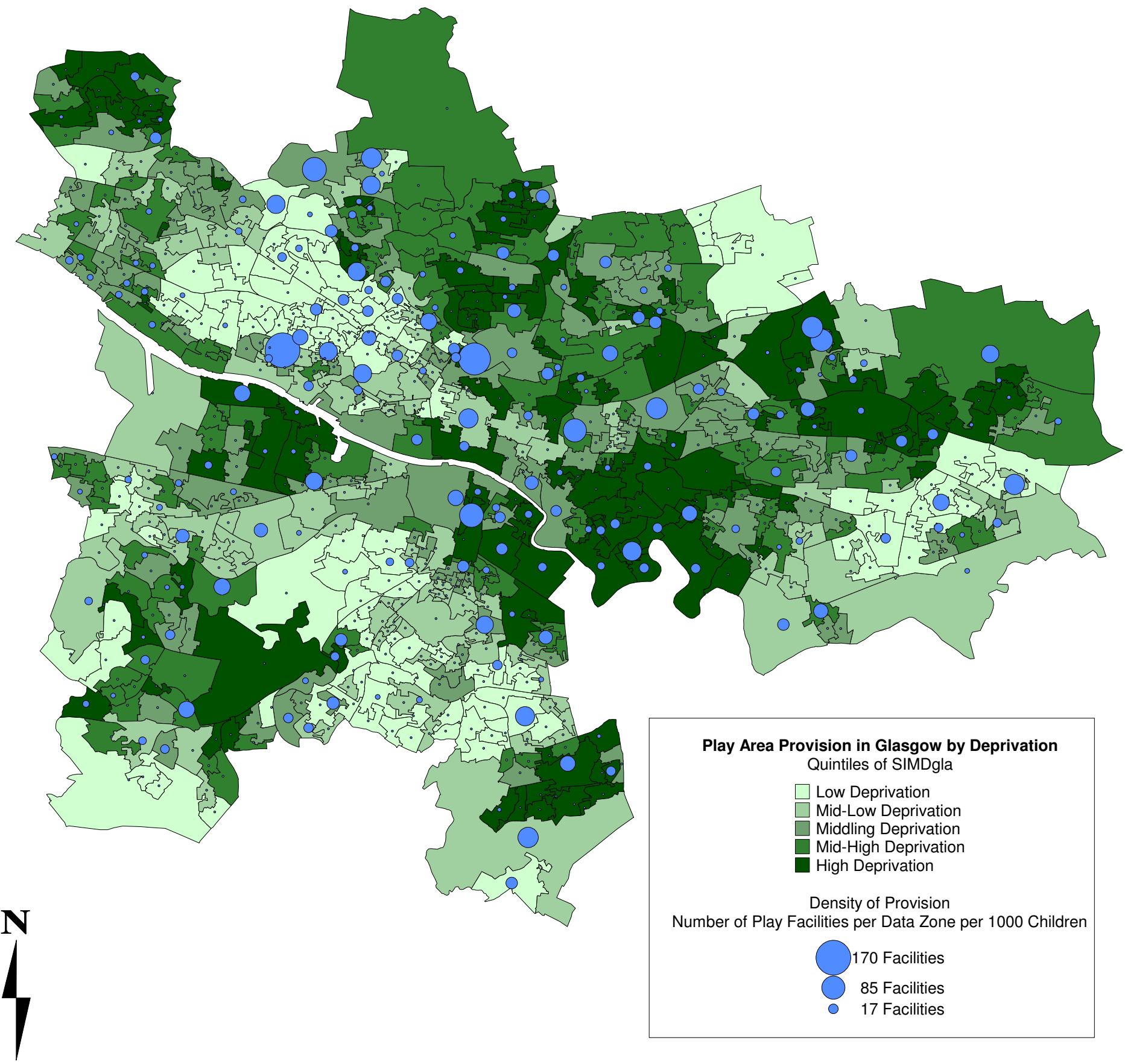




Figure 2-4 Map of Glasgow City showing the density of play areas by the population of children across quintiles of deprivation (SIMDgla)



### ***2.5.3 Description of Data***

After considering their spatial distribution by examining the maps produced in MapInfo, the provision of play areas was also analysed statistically. The mean number of play areas by SIMDgla is shown in Table 2.2. There was a significant trend of increasing provision with greater deprivation, with the most deprived data zones having on average one half a play area more than the data zones in the least deprived areas (p-value = 0.008). This trend is also significant when controlling for the total population in data zones (p-value = 0.004), but not when controlling for the population of children or for younger children, aged under 10 years (p-values = 0.161 and 0.147, respectively). The mean network distance from the centroid of data zones to the nearest play area decreased with increasing deprivation; with a difference of 188m between the most and least deprived areas (p-value < 0.000). Finally, the percentages of data zones containing at least one play area significantly increased with deprivation, with more than double the percentage of data zones in areas of high deprivation containing at least one play area than those in areas on low deprivation (p-value < 0.000).

These relationships went in the same direction, with the same measures showing significant results when assessing deprivation using SIMD Income DomainGla and these can be seen in Table 2.3. Table 2.4 shows the distribution of facilities in relation to deprivation when measured by CarstairsGla. When comparing the provision of play areas per post code sector across deprivation using CarstairsGla scores, there was no significant trend (p-value = 0.145), but when taking into consideration the total population per post code sector, the trend followed a similar pattern to when deprivation was measured using SIMDgla and SIMD Income DomainGla and reached significance (p-value = 0.016). This direction of relationship for the provision of play areas per post code sector remained when controlling for the population of children and younger children, but trends were not significant (p-values = 1.171 and 0.129, respectively). The socio economic variation in the percentage of post code sectors with at least one play area was not calculated since most play areas contained at least one play area due to their increased size in comparison to data zones. For the analysis using CarstairsGla, 12 post code sectors were excluded from the analysis as they

contained a population lower than 1500 residents. This was to make my analysis consistent with that of Ellaway and colleagues (2007) and to exclude areas with low populations such as the central business district. Unlike their work, the areas that I excluded did contain some play facilities. This difference may be due to the updated data from GCC on the location of play areas as well as the methods by which population was calculated. However, since the main reason for using CarstairsGla was to compare my results with that of Ellaway et al, this was deemed appropriate.

**Table 2-2 Provision of Play Areas by Quintiles of Deprivation using SIMDgla**

	Mean number of play areas per data zone		Mean number of play areas per data zone per 1000 persons		Mean number of play areas per data zone per 1000 children (under 16 years)		Mean number of play areas per data zone per 1000 children (under 10 years)		Mean network distance to the nearest play area in metres (m)		Percentage of data zones with a play area present	
Quintile of Deprivation† (SIMDgla)	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	%	N
Low Deprivation	0.50	1.51	0.59	1.83	3.85	10.82	6.43	17.74	624.04	412.53	17.27	24
Mid-Low Deprivation	0.53	1.45	0.62	1.77	5.05	17.99	8.17	27.22	569.65	403.14	18.71	26
Middling Deprivation	0.95	2.34	1.02	2.36	7.49	18.94	11.88	28.69	508.89	317.41	28.06	39
Mid-High Deprivation	1.06	2.03	1.33	2.70	7.25	14.71	11.91	24.19	494.01	375.75	35.25	49
High Deprivation	1.09	1.78	1.35	2.16	7.62	14.27	12.48	22.84	436.46	309.30	45.65	63
Total	0.83	1.87	0.98	2.21	6.25	15.65	10.17	24.49	526.74	370.83	28.96	201
Significance	<b>0.008</b> (F= 3.46)		<b>0.004</b> (F= 3.90)		0.161 (F=1.65)		0.147 (F=1.70)		< <b>0.000</b> (F=5.39)		< <b>0.000</b> ( $\chi^2 = 37.762$ )	

†There are 694 data zones within Glasgow City and each quintile contains 139 units, except the top quintile with High Deprivation which contains 138.

**Significant results are denoted in bold.**

**Table 2-3 Provision of Play Areas by Quintiles of Deprivation Using SIMD Income DomainGla**

	Mean number of play areas per data zone		Mean number of play areas per data zone per 1000 persons		Mean number of play areas per data zone per 1000 children (under 16 years)		Mean number of play areas per data zone per 1000 children (under 10 years)		Mean network distance to the nearest play area in metres (m)		Number and percentage of data zones with a play area present	
Quintile of Deprivation† (SIMD Income DomainGla)	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	%	N
Low Income Poverty	0.45	1.22	0.51	1.42	3.52	10.34	5.93	17.17	635.78	425.14	16.55	23
Mid-Low Income Poverty	0.58	1.84	0.66	2.11	5.35	18.37	8.39	27.07	570.51	396.85	17.99	25
Middling Income Poverty	1.00	2.31	1.11	2.41	8.11	19.26	13.05	29.80	504.52	306.17	28.78	40
Mid-High Income Poverty	1.04	1.91	1.34	2.56	7.97	15.90	12.80	25.15	487.03	373.27	38.13	53
High Income Poverty	1.06	1.82	1.30	2.26	6.30	12.14	10.68	20.73	435.20	309.14	43.48	60
Total	0.83	1.87	0.98	2.21	6.25	15.65	10.17	24.49	526.73	370.83	28.96	201
Significance	<b>0.008</b> (F=3.45)		<b>0.002</b> (F=4.182)		0.790 (F=2.10)		0.075 (F=2.14)		< <b>0.000</b> (F=6.30)		< <b>0.000</b> ( $\chi^2$ =38.368)	

†There are 694 data zones within Glasgow City and each quintile contains 139 units, except the top quintile with High Income Poverty which contains 138.

**Significant results are denoted in bold.**



**Table 2-4 Provision of Play Areas by Deprivation using Quintiles of Carstairs Scores**

		Mean number of play areas per post code sector		Mean number of play areas per post code sector per 1000 persons		Mean number of play areas per post code sector per 1000 children (under 16 years)		Mean number of play areas per post code sector per 1000 children (under 10 years)	
Quintile of Deprivation† (Carstairs Score)	N	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev
Low Deprivation	20	4.62	4.59	0.44	0.43	2.76	2.59	4.53	4.22
Mid-Low Deprivation	21	3.83	3.42	0.39	0.30	3.18	3.47	5.00	5.11
Middling Deprivation	21	6.81	6.28	0.69	0.67	4.70	3.89	7.63	6.35
Mid-High Deprivation	18	7.52	5.29	0.92	0.69	5.46	3.71	8.96	6.23
High Deprivation	13	6.30	4.45	0.97	0.80	5.09	4.80	8.51	7.82
Total	93	5.98	5.05	0.71	0.66	4.39	3.90	7.18	6.33
Significance		0.145 (F=1.76)		<b>0.016</b> (F=3.23)		1.171 (F=1.64)		0.129 (F=1.84)	

†There are 105 post code sectors within Glasgow City and each quintile contains 21 sectors.

However only 93 were included in this analysis since 12 post code sectors needed to be excluded due to low population levels.

**Significant results are denoted in bold.**

## 2.6 Discussion

The results shown in this chapter do not support the deprivation amplification hypothesis, but suggest that there may be other factors influencing the provision of play facilities.

### 2.6.1 *Link to other research*

These results are similar to other research which found increased provision in areas of high deprivation (Cradock, Kawachi, Colditz et al., 2005; Ellaway, Kirk, Macintyre et al., 2007; Smoyer-Tomic, Hewko, & Hodgson, 2004). However, when comparing the numbers of play facilities per 1000 children, this relationship was not significant, contrary to previous work using data on the locality of play provision in Glasgow which was collected in 2003 (Ellaway, Kirk, Macintyre et al., 2007). More up to date data detailing the populations of children were used in this study, but they were calculated for post code sectors by summing the populations recorded at data zone level. It is possible that, despite using published look-up tables, since data zones do not fit neatly inside post code sectors, that there may be some discrepancies between the populations recorded at two different two geographies. These should, however, be minor. The total numbers of play areas in Glasgow reported in the above study were 319, whereas the data that I received indicated that there were 496 swing parks and a total of 573 play facilities. Whilst it is possible that levels of provision have increased, it is unlikely that the numbers of sites within the city have increased by 80% within the two and a half years between these data collections. It is feasible that data were updated during the transfer of the city's housing stock to the not-for-profit housing association, Glasgow Housing Association (GHA) in early 2003, and that the play areas provided by GHA were included in this up to date list. It is also possible that individual departments in GCC record the play provision differently based on their own needs or knowledge, or that there are different versions of the data available depending on the format in which it is recorded. I was informed by GCC Land Services Department that their lists of provision were organised around maintenance, so it is feasible that some of the 'extra' play areas in my data set reflect the different or greater needs for maintenance rather than the physical provision. It is not possible to know which data are 'more' correct, but it is important to note

how different these two sets of data are as it is a reminder that caution should be taken when interpreting results concerning the provision of facilities as data is rarely validated by ground-truthing. If policy making decisions are made based on these types of results, then it is vital that we have confidence in our data.

### ***2.6.2 More than deprivation***

Whilst the play provision in Glasgow was patterned by social deprivation, such that higher provision was found in more deprived areas (although this did not reach significance when accounting for the population of children), the reasons for provision of resources in a city is most likely to be more complex.

Distribution of play areas might be influenced by a number of factors, for example; the historical and development of the city, political factors (e.g. social inclusion partnership funding or lobbying by local councillors), availability of land and the regeneration of local housing.

### ***2.6.3 Caveats***

There are limitations to this research. Firstly, although the data on the locations of play areas were obtained from a reliable source, the information has not been verified and local knowledge from living in the city indicates that there may be some errors within the data set. It is important that this is taken into consideration when interpreting these results. Since there may be double counting of play areas, the street network distance to the nearest facility and the percentage of data zones that contain at least one play area might be more reliable indicators of provision than the measures based on total counts of facilities per data zone. These indicate that there are more facilities present in areas with high social deprivation compared to areas with low social deprivation in Glasgow.

Secondly, although, by measuring the distance to the nearest resource rather than solely relying on counts of play areas within data zones, I have avoided assuming that access is restricted within data zone boundaries (described as a “container view” by Talen and Anselin (1998)), I may have got different results if I used differently sized areas (Openshaw, 1984). This research was also based on

the use of SIMD 2004, the first version of the index, which has since been updated in 2006 and will continue to be updated every three years.

Unfortunately, due to changes in sources of information used for the SIMD, versions 2004 and 2006 are not directly comparable.

Thirdly, provision of a facility does not mean that it will necessarily be used. The size, quality and safety of the play areas are important factors which might influence use, as well as whether the local community is aware of their existence and whether they perceive the facilities as suitable for them. This is line with research with Glasgow residents which suggests that the distance that they perceived they lived from the nearest park was not correlated with the actual distance, as measured by GIS software, indicating that solely measuring distance to the nearest resource might not be enough to predict use or participation in physical activity (Macintyre, Macdonald, & Ellaway, 2008a).

Finally, this research only investigated the provision of play sites in Glasgow and whilst deprived areas are not disadvantaged in terms of the distribution of resources, the quality of play areas within these neighbourhoods may be poorer. This is investigated in Chapter 3.

## **2.7 Conclusion**

Whilst the provision of play areas does not support deprivation amplification hypothesis, it is possible that inequalities in health and levels of physical activity would be greater without the extra provision in poorer neighbourhoods. More research needs to be conducted in order to understand the factors that might influence the implementation and maintenance of play provision

## **2.8 The contribution of this research to the academic literature**

This work adds to the expanding body of literature worldwide which has examined the social patterning of the provision of resources which may facilitate physical activity (Estabrooks, Lee, & Gyurcsik, 2003; Field, Witten, Robinson, & Pledger, 2004; Giles-Corti & Donovan, 2002a; Giles-Corti & Donovan, 2002b; Gordon-Larsen, Nelson, Page, & Popkin, 2006; Hillsdon, Panter, Foster, & Jones,

2007; Macintyre, Maciver, & Sooman, 1993; Macintyre, Macdonald, & Ellaway, 2008a; Moore, Roux, Evenson, McGinn & Brines, 2008; Pearce, Witten, Hiscock, & Blackely, 2007; Timperio, Ball, Salmon, Roberts, & Crawford, 2006; Veitch, Salmon, & Ball, 2008). This study is consistent with the few of these studies which have studied the socioeconomic distribution of play areas in Glasgow (Ellaway, Kirk, Macintyre, & Mutrie, 2007; Macintyre, Macdonald, & Ellaway, 2008a), Amsterdam (Karsten, 2002) the US (Cradock, Kawachi, Colditz, Hannon, Melly, Wiecha et al., 2005) and Canada (Gilliland, Holmes, Irwin, & Tucker, 2006; Somyer-Tomic, Hewko, & Hodgson, 2004), supporting the concept that deprived areas are not disadvantaged further by having poor provision of play areas. Whilst this research updates the work of Ellaway et al., (2007) and complements the more recent work of Macintyre and colleagues (2008a), it is unique in that it included three different measures of area based deprivation (SIMDgla, Income DomainGla and CarstairsGla), three different measures of population to control for some level of need for play provision (total population, population of children under 16 years and population of children under 10 years) as well as using different measures of provision (mean number of play areas, mean network distance to the nearest play area and percentage of data zones with at least one play area). Similar results were found (although not all reached significance), suggesting that the finding of increased provision in areas of high social deprivation was not sensitive to the measures chosen.

## Chapter 3      Quality of Play Provision

This chapter describes the research which investigated whether there were any differences in the quality of play provision in Glasgow in relation to social deprivation. It includes a review of the relevant literature related to the quality of resources for physical activity; a description of the methods employed to audit play areas and analyse results; a summary of the results; a discussion and a conclusion.

### 3.1 Introduction

Whilst, along with Ellaway and colleagues (2007), I have shown in Chapter 2 that, in Glasgow, there is a greater density of provision of play areas in deprived neighbourhoods compared to neighbourhoods with lower deprivation, we do not know anything about the quality of these facilities. In line with the deprivation amplification hypothesis (Macintyre, 2007; Macintyre, Maciver, & Sooman, 1993), one might expect that facilities in deprived areas would be of worse quality, thus creating barriers for their safe and healthy use. In this study, the safety and aesthetics of one hundred play areas in Glasgow were audited and comparisons by social deprivation were made.

#### ***3.1.1 Quality of Resources and Links with Social Deprivation***

Research which goes further than assessing the provision of facilities and investigates aspects such as aesthetics, safety or other features of quality which might act as facilitators or barriers to physical activity is limited. The research that is available mainly concerns features of neighbourhood design, such as street networks and 'walkability' and most investigates adults' physical activity levels (Bauman & Bull, 2007). However, there is a growing body of work which considers the effects of the environment on levels of physical activity amongst children.

In terms of parks and areas of green space, Crawford et al (2008) found that more amenities, such as picnic tables, drinking fountains and shade, were found in parks in Melbourne neighbourhoods with a high socioeconomic status (SES) than those with low SES. Public open green spaces like parks might show a

different relationship with deprivation to equipped play areas. Whilst there is little research concerning the quality of play provision, the research available suggests that play areas in deprived neighbourhoods tend to be in poor state of repair (Cradock, Kawachi, Colditz et al., 2005; Powell, Ambardekar, & Sheehan, 2005; Suecoff, Avner, Chou, & Crain, 1999). From these three North American papers available, it appears that problems relating to the maintenance of play areas such as litter, broken equipment and the up keep of safety surfacing are worse in areas of high social deprivation, but aspects relating to the design of play areas, such as the height of play equipment or the provision of a fence or a gate don't differ. Whilst Powell and colleagues published a paper entitled, *"Poor neighborhoods: Safe Playgrounds"* (2005), they reported that although the play areas provided wood chippings underneath play equipment to limit the impact of falls, in most cases this material was not maintained or deep enough to prevent injury. This was worse in very low income areas compared to areas of low income. They also found high levels of litter and equipment with broken or missing parts in 38% of play areas. It is likely that these problems may be related to the maintenance of play areas rather than their design; but they nonetheless threaten the safety of children playing there. Similarly, in US play areas, there were more total hazards and hazards related to maintenance problems in neighbourhoods with very low income compared to play areas in neighbourhoods with median income levels. However, there were no differences in the hazards relating to fall injuries or those caused by park design (Suecoff, Avner, Chou et al., 1999).

### ***3.1.2 Objective Quality of Resources and Links to Physical Activity***

Since this chapter presents data on the objective quality of play areas, the literature reviewed in this section only includes studies which used objective measures to assess the environment. Studies which reported subjective measures of the environment are included in Chapters 4 and 5.

There have been a number of reviews assessing the environmental correlates of physical activity amongst children and adolescents, (Davison & Lawson, 2006; Ferreira, van der Horst, Wendel-Vos, Kremers, van Lenthe, & Brug, 2006; Sallis, Prochaska, & Taylor, 2000); however, most studies included in these reviews

have only assessed provision of facilities. The only objectively measured aspect of neighbourhood quality included is related to neighbourhood safety.

The environmental studies included in the earliest of these reviews (Sallis, Prochaska, & Taylor, 2000), were limited and included no studies which had measured the quality of resources objectively. A later review which updated the work of Sallis and colleagues included an additional 99 studies, of which 66 investigated associations between aspects of the environment and children's physical activity levels (Ferreira, van der Horst, Wendel-Vos, Kremers, van Lenthe, & Brug, 2006). From these, the authors chose to include only aspects of the physical neighbourhood environment which had been measured at least three times across these papers and counted three different potential correlates of children's physical activity levels: provision of facilities, neighbourhood safety and neighbourhood hazards. They concluded that none of these different measures of the physical environment were related to children's physical activity (Ferreira, van der Horst, Wendel-Vos, Kremers, van Lenthe, & Brug, 2006). However, amongst adolescents (over 12 years old), increased rates of crime were negatively related to physical activity levels in three different studies (Brodersen, Steptoe, Williamson, & Wardle, 2005; Gomez, Johnson, Selva et al., 2004; Gordon-Larsen, McMurray, & Popkin, 2000). This is in contrast to the lack of associations between perceived levels of crime amongst this age group. This difference in the associations of objective and perceived rates of crime with physical activity amongst adolescents was also reported by Davison and Lawson (2006) and the National Institute of Health and Clinical Excellence (NICE) recently reviewed this evidence and rated the size of negative effect between crime and physical activity as small (Biddle & Public Health Collaborating Centre for Physical Activity, 2007).

In contrast to crime rates, social and physical disorder has been found to be related to increased physical activity (Molnar, Gortmaker, Bull, & Buka, 2004). However, in this study, whilst objective measures (via coding of video recording) were used to assess neighbourhood disorder, the measure of physical activity was not as rigorous. The authors used parental proxy report of the number of hours children spent in physically active recreation.



Neighbourhood disorder was also measured in a large cross sectional household survey across seven European cities in France, Germany, Budapest, Slovakia, Italy, Switzerland and Lithuania (Miles, 2008). Adults reported their perceptions on neighbourhood safety and their willingness to allow children to use local, public play facilities. Additionally, surveyors visited neighbourhoods and assessed the neighbourhood type, traffic volume, and presence of graffiti, litter and greenery. Graffiti, litter and lack of greenery were combined to create a score of neighbourhood disorder. Residents living in areas where there were low to moderate levels of disorder were more than twice as likely to feel willing to recommend the use of local play facilities compared to those living in areas with high levels of disorder. The levels of neighbourhood incivilities were reflected in perceived safety since those living in areas with high levels of graffiti and litter felt less safe. However, the quality of the neighbourhood and perceived safety had independent effects on the readiness to use local playgrounds and the effect of neighbourhood disorder was only slightly attenuated when perceived safety was included in the model. Those who felt safe in their neighbourhood were 2.83 times more likely to recommend the use of local play areas compared to those who did not feel safe. Living in a neighbourhood with little traffic did not impact upon recommendations to use play areas (Miles, 2008) .

### ***3.1.3 Important Factors when Choosing a Play Area***

Whilst the availability of play areas around the home is a potential correlate for physical activity amongst children (Sallis, Bauman, & Pratt, 1998), it is feasible to assume that the quality and features of such provision may be a moderator of this relationship. For example, the poor quality of a facility may mean that it is not used despite its convenient location. When selecting a play area for their pre-school children, the five main considerations that parents had in California were safety, availability of toilets, drinking water, lighting and shade. The least important factors were whether the area had a swimming or wading pool, whether the child could go there alone, whether parent's friends or relatives go there, whether children's friends go there, and whether it was crowded with children (Sallis, McKenzie, Elder, Broyles, & Nader, 1997). In contrast, a Canadian study found that the most important factors for parents in choosing a

play area to visit was the availability of a wading pool or ‘splash-pad’<sup>1</sup> and the presence of swings for those parents who visited play areas that were not the closest facility to their home. This study also found that, although parents spoke positively about the play areas in general, they would like them to be cleaner and to have lighting at night to prevent unwanted behaviour and vandalism, which resulted in unsanitary or unsafe debris (Tucker, Gilliland, & Irwin, 2007). It is likely that these preferences will differ depending upon the climate as well as the age of the child. The parents in Sallis and colleagues study were re-interviewed one year later and the importance of safety in choosing a play area had decreased. The authors suggest that with the children’s increasing age and physical ability, they may be at less risk of injury. The importance of distance, factors relating to the quality of play opportunity and social factors were rated as more important a year later which the authors argue may be due to the children’s developmental advancement and readiness to engage in more organised or adventurous play (Sallis, McKenzie, Elder et al., 1997).

The presence or absence of different factors may create barriers to the use of play areas for children or parents and these factors might be culturally specific. For example, these authors also demonstrated that the most important aspects of a play area were different for parents of Mexican American children than for parents of white children; however these factors may be related to the significantly lower socioeconomic status of the Mexican Americans as well as ethnicity (Sallis, McKenzie, Elder et al., 1997). Parents of Mexican American children placed a higher priority on the provision of various amenities, such as toilets and lighting as well as the quality of the play equipment and the availability of organised games or supervision than those of white children. Parents of white children were more concerned about issues relating to safety, convenience (including distance, cost and too many children at play areas) and whether their children’s friends went there than those of Mexican American children. The authors suggest that these differences may be due to lower socioeconomic status of the parents of Mexican American children who may live in areas with poorer quality provision and so place a high importance of the play value of the site, which parents of white children may take for granted. Cost

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<sup>1</sup> A splash pad is an area for water play, which has no standing water, but has showers and hoses which spray water upwards. They are generally designed for younger children and require no lifeguards and little supervision since there is a low risk of drowning ((Wikipedia, 2008))

may not have been an issue for the parents of Mexican American children since they would not be able to afford to choose to visit sites which charged an entrance fee and so free access was assumed.

### ***3.1.4 Objective Measures versus Perceptions to Assess the Environment***

There is some debate about the methods by which environmental attributes should be collected and whether objective measurements or individual perceptions are better at predicting physical activity behaviour.

Objective measures, such as audits, crime rates, deprivation indices etc can be used across settings to compare empirically whether there are differences. They can also be directly linked to the environment to suggest or evaluate policy changes. However some objective measures have found to be poorly related to residents' perceptions of the environment. For example, poor agreement has been found between objective and subjective measures of access and quality of neighbourhoods (Kirtland, Porter, Addy, Neet, Williams, Sharpe et al., 2003), but a slightly better relationship was found amongst those who were physically active. It might be that those who are active spend more time outside in their neighbourhood and as such rate it differently. In Glasgow, there was also relatively poor agreement between perceived and actual distance to the nearest park amongst residents and not owning a car and having a dog only improved this relationship very slightly (Macintyre, Macdonald, & Ellaway, 2008a).

There may be interaction between objective data and other factors (such as expectations, social norms, lack of knowledge or awareness, cultural values etc) which influence people's perceptions of the environment. It may be that perceptions of these environmental factors influence behaviour rather than objective measures. Amongst adolescent girls, perceived access was found to be related to increased physical activity, independent of objective measures of access (Scott, Evenson, Cohen, & Cox, 2007).

In this thesis the provision and quality of play areas was measured using objective measures, since I wanted to compare and test for differences across quintiles of deprivation, but perceptions were sought through qualitative

methods elsewhere since I wanted to develop a deeper understanding of what adults and children thought about play areas and how that might impact upon their use.

## **3.2 Aims and Objectives**

The main aim of this aspect of the PhD was to determine whether there were differences in the quality of play areas by social deprivation. A further aim was to make recommendations for suitable changes to an audit tool in order that it could be used by policy makers in Glasgow to help prioritise and evaluate play area refurbishments.

## **3.3 Design and Methods**

The aesthetics and safety of one hundred play areas across Glasgow were audited using a quantitative checklist between January and May 2006. I audited around one fifth of the play areas on my own and the rest were audited by four employed fieldworkers, who worked in pairs.

### ***3.3.1 Choosing an Audit Tool***

In order to assess how the quality of play provision in Glasgow varied by social deprivation, a suitable audit tool and appropriate research areas were both required. Whilst there is methodological debate over the use of objective measures or perceptions of the environment in predicting physical activity, I chose to use objective methods as that meant that results would be consistent and comparable across research areas. If I investigated the quality of play areas using residents' perceptions, results may be more biased in areas where people are more aware of their local facilities or where they use the play areas more often. In line with a multi methods approach, I sought public perceptions elsewhere in the PhD and this is discussed in Chapters 5 and 6. From the literature search at the beginning of the PhD, it was clear that the research detailing the quality of public play spaces was limited. It was preferable to use an established audit tool if a suitable one existed since this would make best use of the time and resources available. As well as searching relevant journals and databases for published papers assessing the quality of play areas, I emailed

authors in the field of environmental determinants of physical activity and asked them if they had developed or knew of a suitable audit tool. Representatives from Play Scotland, The Children's Play Council and the Royal Society for the Prevention of Accidents were also asked. Details of the emails sent can be found in Appendix C. From the published articles and e-mail responses, two checklists were found that had been used in the USA. Both checklists addressed aesthetic and safety aspects of play areas and in order to choose the most suitable one for use in Glasgow, they were piloted in three play areas to check for ease of use and appropriateness for the setting.

### ***3.3.2 Piloting the Checklists***

I piloted both audit tools in three, conveniently located, play areas and assessed them for ease of use as well as specificity of the questions to the aims of the research. I assessed each play area by both of the two checklists, took photographs of the play equipment to document the quality of the provision and wrote field notes to document the pilot process.

#### **3.3.2.1 Checklist 1 – Environmental Assessment of Public Recreation Spaces**

The first checklist that was piloted was the 'Environmental Assessment of Public Recreation Spaces (EAPRS) (Saelens, Frank, Auffrey, Whitaker, Burdette, & Colabianchi, 2006). This forty-seven page tool was designed in order to assess the physical environment of parks and play areas in the USA and contains questions on a wide range of physical features including; trails, seating, open space, meadows, wooded areas, water areas, eating and drinking facilities, toilets, shelters, entertainment venues, educational or historical markers or monuments, landscaping, sculpture or art, rubbish bins, wildlife areas or structures, entrances, bike racks, parking, directive and information related signage, telephones, play sets, play equipment, athletic fields and other recreation areas. The checklist used five different scale rating systems depending upon the physical feature in question as well as yes or no (binary) options.

Although this checklist was comprehensive, the main concern was that a large number of the questions were not wholly applicable to the types of sites that

were under review. For example, there are eight pages of questions about trails, paths and pavements which would be more relevant to a larger park than a play area. Of the twelve pages referring specifically to play equipment, the pages were split into sections with questions about each type of apparatus. The questions did not however distinguish between different types of quality or safety issues. For example the “cleanliness” and “condition” of each item of equipment is rated on a three-point scale, but these do not differentiate between dirt, graffiti, rust, snag hazards or broken parts. There are also no questions referring to the condition of the safety surfacing which is considered an important issue of playground design. More positively, the questions did consider the number and types of different kinds of equipment and whether or not the play apparatus was colourful. The main concern with this checklist, however, was that it was too long and time consuming to complete, although not having the specificity needed to audit play equipment.

### **3.3.2.2 Checklist 2 – Play Across Boston Facility Survey**

The second checklist piloted was the Play across Boston Facility Survey (Cradock, El Ayadi, Gortmaker, Hannon, Sobol, Wiecha et al., 2002; Cradock, Kawachi, Colditz et al., 2005) which was developed in order to;

*“Evaluate amenities, recreational facilities and playground (play lot) features including climbing structures, slides and swings located at each site.”*

(Cradock, El Ayadi, Gortmaker, Hannon, Sobol, Wiecha et al., 2002, Pg 5)

This American checklist contained seventeen pages covering aspects of general areas, field areas, sports courts, other facilities (including gyms, pools or golf courses), and play areas. Although the sports areas were not applicable to this research, the succinct, four pages on play areas were adequately detailed to investigate the quality of the play areas. All but ten of the questions had yes or no answers and the others were based on three different four point scales. The binary options meant that the checklist was very straightforward and relatively quick to administer. There were questions regarding the presence of graffiti, broken glass and general litter as well as evidence of drug use or sexual behaviour. Additionally, the questions about the safety of the play equipment distinguished between different types of faults that could affect the quality of

the facility. These included aspects such as rust, snag hazards, peeling or chipping paint as well as possible design flaws such as the height of platforms, the type and coverage of safety surfacing and the number of swings per bay. There were also a number of questions relating to the people present in the play area and their behaviour. The presence and safety of spring toys, see-saws or roundabouts were not covered by this checklist in its original form and there were some questions which involved measuring depths or distances, which proved too difficult to carry out. Overall, although adaptations were required to make this checklist suitable for a Glasgow context, the tool was easy to administer and relatively short but detailed enough to carry out comparisons on the main issues of interest; safety and aesthetics. The changes to the checklist are now discussed.

### ***3.3.3 Adaptations to Checklist***

After piloting both checklists, the Play across Boston checklist (Cradock, Kawachi, Colditz et al., 2005) was chosen as it was easier to administer and the scoring of most questions contained binary options. It was thought that the simpler the audit tool was to administer, the less inter-rater error there might be and the quicker the whole audit process would be.

I photographed and audited sixteen play areas and wrote field notes on aspects not included in the original audit form; for example the quality of roundabouts or see-saws. I also wrote brief field notes detailing any conversations with members of the public; including play area users, local residents and maintenance staff. The photographs of the play areas were carefully taken to avoid identifying individuals and no names or personal details were used in the field notes. After these initial audits, some changes were made to the audit tool to make it more user-friendly and specific to Glasgow. These changes are discussed below. Full versions of the initial and adapted checklists are in Appendices D and E

#### **3.3.3.1 Terminology**

Since the checklist was developed in Boston, American-English terminology was used throughout. This was replaced with the UK- English equivalent. The six replacements were as follows: the spelling of feces was changed to faeces;

garbage cans were replaced with litter bins; sidewalk with pavement; restroom with toilet; and tot with toddler. Although these were simple changes to the checklist, it was hoped that they would make the checklist more user-friendly and make fieldworkers feel that it was an appropriate tool for them to administer.

The phrase “loose-fill surfacing” was used in the checklist to describe safety surfacing underneath play equipment and although the checklist indicated that loose-fill material can include wood chippings, sand or gravel and rubber, it may not be immediately obvious; since rubberised safety surfacing is not loosely filled. Although all fieldworkers were made aware that the phrase included all types of safety surfacing during training, in hindsight the phrase should have been changed to eliminate any confusion and improve usability.

### **3.3.3.2 Removed, Adapted and Additional Questions**

After the pilot, it became clear that there were some measures that were not feasible. These included measuring the depth of loose-fill surfacing, measuring the height of play equipment and measuring the distance between swings. There were also some things not covered by the original audit form which were added in order to get as a complete account as possible of the quality of play areas in Glasgow.

#### ***Play Equipment Counts***

An extra sheet was introduced at the beginning of the checklist to detail and count the numbers and types of pieces of equipment present in the play area. This was not covered by the original checklist, but I thought it might be useful in order to compare play area quality by the number of pieces of equipment at a later date. It also helped to keep track of the types of equipment present in the play area and was an ideal starter sheet to initiate the quality audit proper since fieldworkers had to look at the whole site.

#### ***Loose-Fill Surfacing Questions***

Measuring the depth of loose-fill material was not always possible in the winter months when wood-chippings were frozen. Also, the correct procedure was to



take two measurements which agreed within one inch. There was no recommendation of where to take these and since measurements taken around the edges of the enclosure could be quite different to those taken underneath equipment where children had played and displaced the material, it was sometimes not possible to obtain similar measurements, unless they were taken in almost exactly the same position. However, by taking measurements in this way, the benefits of the multiple measurements are lost. Furthermore, the cleanliness of the wood chippings was a concern for the health and safety of fieldworkers since they may contain animal faeces and/or broken glass. This question did also not address the quality of the safety surfacing if it was a rubberised material. Since rubberised material was the predominant form of safety surfacing in the play areas, a decision was made to alter the question and not to take measurements of the depth of the loose-fill. The question was altered from, *“Depth of loose-fill surfacing is < 9 inches (measure 2 times)”*, to, *“Is the loose-fill surfacing adequately filled?”*

The surfacing could be described as adequately filled if the rubberised surfaces contained no holes or missing tiles and loose-fill materials were full to the ‘brim’ of the enclosure. If the surface below the loose fill material was visible then it was not adequately filled. The space for writing the depth measurements was deleted from the audit tool.

### ***Height of Climbing/Sliding Equipment***

It was also difficult to measure the height of pieces of equipment with only one fieldworker since sometimes the highest platform of the climbing equipment was further than the author could reach. Instead of measuring the height of equipment, fieldworkers estimated whether or not the highest platforms were over 6 feet tall. It was felt that it was not necessary to obtain the exact heights of platforms since no calculations were going to be conducted using the figures themselves. The fieldworkers did carry tape measures to check the height if they were unsure, but in general these were not required. The wording of the question itself remained unchanged, however the space denoted for the actual height measurement, was removed.

### ***Swings Questions***

In the original audit tool there are two questions regarding distances between the swings and between the swings and their supports. These were safety features based on US guidelines, but were difficult to carry out since they needed to be taken at a height of 60 inches above the safety surface. The UK and European guidelines for swing positioning and safety surfacing did not cover such distance and so these two questions were removed. The European guidelines to measure appropriate fall zones are complicated to perform and involve checking the angles at which the swings reach certain elevations. This kind of examination of swings requires quite extensive training and was deemed too complex for this audit, which meant that there were no suitable substitutions. However, there were no questions regarding the state of repair of the swings, as there were for the other pieces of equipment. Since aspects such as rust or chipping paint might deter parents or children from using swings in a similar way that they might be deterred from using slides or climbing apparatus, some questions were added to the swings section. These questions were copied from a previous section in the checklist referring to climbing and sliding equipment and included:

*“Equipment is free of rust and splinters?”; “Equipment is free of broken/missing parts?” and “Equipment is free of chipping and peeling paint?”*

The binary scoring system remained the same.

### ***Spring-Toys, See-saws and Roundabouts***

Since some play areas contained equipment not covered by the original checklist, questions were added detailing the condition of roundabouts and spring-toys or see-saws, using the same phrases and marking scheme as was already contained in the checklist for swings and slides. These additional questions covered the presence and condition of safety surfacing, and the state of repair of the equipment.

### ***3.3.4 Choosing the Research Areas***

Play areas were purposefully sampled to include sites in areas with social deprivation at both extremes and in the middle quintiles of deprivation, i.e. high, middle and low deprivation. In order to calculate a sample size a power calculation was carried out. A power calculation determines the sample size required to reject the null hypothesis (that there was no difference in the quality of play areas by social deprivation) whilst avoiding Type II errors.

As discussed in Chapter 3, SIMD quintiles were calculated specifically for Glasgow (SIMDgla) rather than Scotland. Using the conventional quintile of SIMD would have meant that there were too few data zones in the least deprived quintile within Glasgow and too few play areas to audit. Additionally, since I was comparing play areas across Glasgow, rather than Scotland as a whole, it makes sense to compare areas of relative deprivation within the city. Since the audit tool had not been used in the UK and there were no other data detailing the quality of play areas in Glasgow, there were no adequate figures with which to complete a power calculation. Instead, the mean safety scores and standard deviations of play areas in Boston were used to estimate the number of sites that would need to be audited in order to have enough power to show variation between the safety of play areas with high, medium and low deprivation. Using the mid-points of tertiles of the overall safety scores in play areas in Boston (Cradock, El Ayadi, Gortmaker et al., 2002), calculations were carried out in NCSS-PASS to estimate the numbers of play areas to be audited in order to gain a power of 80%. It was necessary to assume that the standard deviation was constant across areas of Boston and across the range of scores since there were no details on individual standard deviations included in the journal article or in the summary report. Whilst the tertiles of the overall safety score that were used to compute the power calculation did not represent areas of deprivation, it was necessary to assume that these would vary by deprivation since there were no other data provided in the reports without knowing any details about geographical areas of Boston.

The power calculation was conducted using the mid-points of the upper and lower tertiles of the overall safety score from the Boston audits and in order to achieve a power of 80% or greater between the upper and lower quintiles of

SIMDgla, it was calculated that it would be necessary to audit 17 play areas in each of the three (high, middle and low) quintiles of deprivation. By using the lowest value of the upper tertile and the highest value of the lower tertile of the overall safety score from the Boston study (i.e. the most conservative values), it would be necessary to audit 57 play areas in each quintile of SIMDgla in order to have a power of 80% or greater. Thus somewhere between 17 and 57 play areas in each quintile would need to be audited in order to have sufficient power. Since the power calculation was carried out using tertiles of scores whereas the audits conducted in Glasgow would be in areas of extremes of deprivation, it is feasible to assume that the power calculation may be a conservative estimate. Other considerations in deciding the number of sites to audit were time and resources. It was estimated that with the resources and time frame available, that it would be possible to visit 150 play areas across the city. Using the mid-points of the upper and lower tertiles of the overall safety score from the Boston study, and auditing fifty play areas, the power was calculated as 99%. With the same number of play areas, but using mid points of mid and lower tertiles, the power was 82% and with the mid points of the upper and mid tertiles, the power was 52%. Since more conservative data had been used in the power calculation, it was deemed justifiable to audit 150 play areas, 50 in each of the high, medium and low quintiles of SIMDgla. Unfortunately, as discussed further in the chapter, not all sites visited actually contained accessible play areas which meant that only 100 play areas in total were audited.

#### **3.3.4.1 Sampling**

From the list of play areas obtained from Glasgow City Council, any play areas detailed as a skate park, bmx track, kick about area or sports pitch or court were not included in the selection process. Although these facilities are types of outdoor play facilities, the audit tool chosen was only suitable for traditional swing park type play areas. It was not feasible in the time frame of the PhD to audit all play facilities in Glasgow and it was decided that to get a more accurate comparison across quintiles of deprivation the type of facility should remain constant. The data zone and SIMDgla score of each play area was obtained from the mapping completed in Chapter 3.

Using all play areas within the highest, middle and lowest quintile of SIMDgla, a random sample of 50 sites in each were selected using random number seed in SPSS for Windows v12.0. This meant that there was over representation of play areas in least deprived neighbourhoods, since there were fewer of them. More sites were randomly selected in a similar way during the study when play area sites were not present or not accessible for audit. Using the OS co-ordinates supplied by Glasgow City Council, street level maps detailing the exact locality and driving directions were printed from [www.streetmap.co.uk](http://www.streetmap.co.uk) and [www.theaa.com](http://www.theaa.com), respectively. The play area sites were also marked in a Glasgow A-Z before each visit and these were carried by fieldworkers when visiting play areas, should they get lost.

### ***3.3.5 Choosing the Fieldworkers***

Initially it was thought that undergraduate students could be recruited to help audit the play areas. Volunteering to undertake some fieldwork as work experience, is sometimes offered by students in their third or fourth year, especially by those who are keen to follow a research career. However this option fell through when the volunteers neglected to turn up for the initial couple of meetings. Health problems during this time meant that my mobility was limited and it was decided that fieldworkers should be employed in order to complete the fieldwork in a timely fashion.

The temporary post was advertised on the Unit's website and details were posted to some previous fieldworkers employed by the Unit. The post holders were required to be educated to degree level or equivalent, have a full, clean driver's licence and access to a car, be able to operate a digital camera and have an understanding of good research practice. They were also required to be a good team worker and timekeeper, reliable, organised and responsible, with a flexible approach to work and good attention to detail with clear handwriting and high levels of accuracy. Following the interview process, four fieldworkers were recruited for these temporary positions and were given full training.

A training session was arranged prior to commencing fieldwork and this comprised of an overview of safety precautions and ethical considerations, a description of their role and protocol for the audit along with familiarisation

with the checklist. After going through each question in the checklist and discussing any ambiguities, all of the fieldworkers visited a local play area and completed a full checklist form. They then had the opportunity to discuss their different results and ask any questions about how the audit should be filled out. The first play areas audited were audited as a group and the opportunity to discuss the questions was available. After this, the fieldworkers were encouraged not to confer on results. As part of the training and quality control, periodically I completed an audit together with all four fieldworkers in order to ensure that they were aware of the correct protocol. The full protocol and safety requirements are discussed below.

### ***3.3.6 Conducting the Audits***

#### ***Safety Considerations***

Using the downloaded maps and directions, along with a Glasgow street map play areas were visited in clusters for ease of travel. Whilst the author visited play areas on her own at the beginning of the research, she felt uncomfortable visiting some of the more secluded play areas or those in very deprived communities on her own, and so the employed fieldworkers worked in pairs. All fieldworkers carried mobile phones and personal alarms and used the Communicare lone working security device which could identify their location and has a panic button facility should they come into danger. This system involved telephoning and recording your location/s and expected time of return. If the user does not sign out of the system by the expected time, then an escalation procedure begins which includes three text messages being sent to the user's mobile phone, followed by three telephone calls. If the user does not respond after these then the Survey Office at MRC SPHSU will be contacted and if they cannot contact the fieldworker to confirm their safety, then the police will be informed. The location of the security device can be found using GPS tracking in order to locate the fieldworker and the Survey Office at the MRC SPHSU had addresses for the play areas under audit should they need to inform the police.

All audits were conducted in daylight hours and the fieldworkers were advised not to put themselves into any potentially risky situations. They were advised if

at any time they felt unsafe, to leave the play area, even if they had not completed the checklist, and return to their car or a safe place (e.g. shop, community centre etc) or use the panic button facility on the communicate device. They were also advised that if a member of the public voiced their concern and did not want the fieldworkers conducting that audit at that time, then they should leave and return at a later date. The fieldworkers were also reminded that there may be broken glass, animal faeces and trip hazards present in the play area so they should take care. The fieldworkers carried telephone numbers for Glasgow City Council should they witness anything that would require their services, for example needle uplift or broken, hazardous equipment. Finally, fieldworkers were advised not to use any of the equipment themselves during the audit.

### ***Ethical Considerations***

Whilst fieldworkers would not disrupt children's play and made every attempt to remain at the 'side-lines' as much as possible during the audits, it was decided that play areas should be visited at times of day when the sites were likely to be least busy. Additionally, it meant that few people would be worried about being photographed. In order to limit the number of visitors present at the areas during the audits, play areas visited on week-days between 8am and 1pm when children were at school. During the audits, fieldworkers carried photo cards identifying them as employees of the MRC and information sheets about the study should any members of the public question the fieldworkers' presence in play areas or want any further information on the study. The information sheet described the study and contained telephone numbers for contacts at the MRC SPHSU including the author and her supervisors and can be seen in Appendix H. Since no persons would be identified in the research, it was not necessary to gain informed consent of all of the play area users, but should anyone become very unhappy about the presence of fieldworkers then they were advised to leave and return at a later date. Additionally, the fieldworkers could show any member of the public any photographs they had taken using the LCD screen on the digital camera. They could also delete a photo should it identify anyone, whilst being careful not to delete all photos stored on the memory card.

### **3.3.6.1 Protocol for Auditing a Play Area**

Fieldworkers were given a protocol for auditing the play areas to ensure their safety, the quality of the data and to ensure that they adhered to any ethical considerations. This protocol is now is described.

#### ***Getting There***

Using the O.S. co-ordinates and a street map, fieldworkers travelled to the pre-determined play area site, and double checked that they were at the correct location, especially if they could not see a play area or if there were multiple play areas in the vicinity. When entering the play area they should ensure that it is safe to do so and should not enter any play areas that are cordoned off for repair, locked or closed to the public.

#### ***Fieldworker and Play Area Details Sheet***

The first two cover sheets should be completed before the formal checklist. The fieldworkers needed to ensure that they completed all questions and included their own name and travel details as well as the address for the play area. If the address they had been given was incomplete or incorrect then they should correct it.

#### ***General Questions***

Fieldworkers were advised to fill in a form counting and detailing the types of play equipment present in the play area. They were advised to write none or n/a if appropriate, but not to leave a question blank. If there were additional types of equipment not covered by the sheet then they should describe it in the sections labelled as 'other'.

#### ***Quality Audit Checklist***

At the beginning of the audit, fieldworkers should take a few minutes to walk all paths around the play area, looking at equipment, ground surface, fences and the general surroundings, trying to keep in mind the questions that the checklist asks. Then they should go through the checklist and circle the appropriate



response for every question. Where a question is not applicable to the play area, they should write N/A. When answering questions relating to persons with disabilities they should think:

*If I was blind, had crutches, in a wheelchair, or if I couldn't understand that well, could I use this site/area/bathroom?*

Fieldworkers were reminded that loose-fill surfacing is used to describe adequate safety surfacing including rubberized materials and that it is adequately full when materials reach the 'brim' of their enclosed bay or if the rubberized material is in a good state of repair.

### ***Photographs***

The main reminder to fieldworkers is that no member of the public should be identifiable in any photographs. Fieldworkers should delete any photographs that may identify children or adults. It was advised to try to take at least one photograph of the entire play area, but if the play area is too large to fit in one photograph, take a few to show the place as a whole. They were also asked to take photographs of each piece of equipment to document their state of repair and to take close ups of particular parts of equipment that are badly maintained, unsafe or interesting. Before leaving the play area, fieldworkers should use the LCD display to check that the photos have taken correctly and are in focus and retake any photographs if necessary.

### ***Leaving the Play Area***

Fieldworkers should ensure that they have all paperwork and equipment with them before they leave. If they had disturbed any ground or loose fill surfacing, they were asked to try to 'restore' it as best they can and were also reminded not to leave any litter behind and to close any gates behind them.

### **3.3.7 Analysis**

After the play area audit was complete, the data needed to be entered, cleaned, checked and coded before analysis. These steps are now described.

#### **3.3.7.1 Data Management**

It was essential to ensure that fieldworkers had filled in the front sheet of each form detailing their own name, the play area ID, address and the date and time of the audit. They also needed to write the ID numbers of the photographs they had taken at each play area. After each day of fieldwork, the identifying details were checked and checklists were kept in folders marked with their play area ID and stored in a locked filing cabinet. The photographs from each audit were copied from the camera onto a network drive where they were stored in a folder noting the play area ID and address. These were backed up onto a CD, periodically. At the end of each day, the author could check that the fieldworkers were completing the forms correctly and ask them to make any changes to the way they completed the audit if required.

#### **3.3.7.2 Data entry**

The Survey Team at MRC SPHSU helped with data entry. They were responsible for creating a form for entering the data using Microsoft Access and they entered half of the data whilst I entered the other half. Microsoft Access forms were used in order to make the entry as simple as possible and to try to reduce any entry errors. If there were entries missing then a 9 was entered and an 8 was used for N/A rather than having any empty spaces in the database. Once all of the data was entered, it was checked. Initially, a sub sample of the checklists was checked for errors, but since these did contain some mistakes, the whole data set was checked to ensure confidence in the reliability of the data. Print outs from Microsoft Access forms were manually checked against the completed checklist forms and any errors were noted and then corrected. The data were also cleaned as part of the checking process to remove any incorrect entries and any missing entries that should be denoted as Not Applicable were corrected.

### **3.3.7.3 Data Coding**

Data was copied into SPSS for Windows v 12.0 via an excel file. Attributes of the play areas were added into the document by linking their ID number to details from Chapter 3. The SIMD score and SIMDgla quintile was added to the file and any items that were not applicable or missing were entered as 8 and 9 respectively and recorded system missing in SPSS so that they would not be included in the analysis. In order to code the data, it was important to decide how the results were to be analysed and what questions needed to be asked. The checklist contained predominately close-ended questions with binary option answers, but there were also ten questions which asked fieldworkers to rate an item on a scale of 1 to 4.

#### ***Weighting of Variables***

The overall safety score produced by Craddock and colleagues (2005) was a proportion of all of the possible attributes in a play area that met the appropriate safety standard with 1 being the highest safest score. All questions were equally weighed and so the play area being free from litter was treated equally as important as adequate safety surfacing being present. It would not be rational to try to weight these variables without any knowledge of which aspects are most important to users and so no weighting was conducted.

#### ***Adapting the Four Point Scales***

Of the ten questions which were scored on a four-point scale, four questions were labelled as “Almost None, Very Light, Moderate and Heavy” and related to the level of dog faeces, litter (including natural ‘litter’ such as leaves or branches) and glass in the area. The difference between these options is quite subjective and it is also not clear whether the level of coverage for these four questions using this scale would be the same, i.e. if heavy dog faeces would need to have the same level of coverage of the play area as heavy litter for example. Five questions asked about how accessible certain parts of the play area were to those with disabilities and these were marked as “Totally, Some areas/signs, some areas, no signs and No”. There is also no clear distinction between the points on this scale or if an area is partially accessible to persons with disabilities whether that meets the standard required or not. One question

detailed the level of graffiti coverage present in the play area and was scored as “None, less than 10%, between 10% and 19%, and 20% or greater” of the area has graffiti present. It is not clear why the points of this scale were given numerical values rather than subjective measures, as with the other questions relating to coverage, nor why the highest value is 20% or more.

These questions had not been included in the published paper on the Play across Boston study (Cradock, Kawachi, Colditz et al., 2005) and so there was no precedent or guidance for how they should be analysed. Since the four-point marking systems of these questions were not likert in nature, it meant that the difference between individual points could not be assumed to be equal and they could not simply be coded as quarter-points of 1. In order for all of these questions to remain weighted equally to the other questions, it was necessary to choose a point to split the four-point scales and create a binary option. Whilst this could have been achieved by looking at the distributions of each variable and choosing a mid-point, there did not seem to be any theoretical justification for scoring the items in this way. In addition, with regards to the questions about accessibility there seemed to be no logical split except either fully accessible or not fully accessible. In the same way, the most logical way to split the questions was into absent or present. Although it could be argued that some level of detail is lost by combining the ratings, since the theory behind the scoring system was not developed for this study and as such it is not completely clear what each point on the scale represents, it is more practical to have broader categories with a clearer and understandable definition which removes a lot of the subjectivity involved.

After taking this into consideration, the questions were all re-coded into binary variables. The questions “Dog Faeces”, “Litter/Trash inc paper, cans, wrappers”, “Litter/Natural inc leaves, braches” and “Glass-including bottles, broken glass” were recoded by combining the scores “Very Light”, “Moderate” and “Heavy” into a variable of “Present” and the score of “Almost None” was reworded as “Absent”. The questions about the presence of graffiti, “Graffiti (excluding murals/works done by artists who sign their work)” was recoded in a similar way in that “None” was reworded as “Absent” and the other three levels of graffiti were combined into a category of “Present”. For the questions relating to accessibility, “Is the site/other facility accessible to persons with

disabilities?”, a binary variable of Totally Accessible/Not Totally Accessible was created by combining “Some Areas/Signs”, “Some Areas/No Signs” and “No” to make a “Not Totally Accessible” score and “Totally Accessible” remained the same.

### ***Dealing with More than One Observation for a Variable***

Since there were at least two fieldworkers making observations at the majority of play areas, there were sometimes conflicting results, even with the binary options. It was not possible to take an average of the results when there was an equal split between observers since it would mean taking a meaningless value between absent and present. It is sometimes possible to overcome the problem of having more than one observation by comparing results to a gold standard, and this idea was considered at the beginning of the research, with the author being the gold standard. With more thought, it was considered that there was no real reason to suggest that I was any more valid in observing play areas than any of the other fieldworkers, especially since some of the questions may be subjective. Indeed, by the end of the research phase the fieldworkers had conducted more audits than me and as such could be deemed more experienced. It may be that some fieldworkers tended to be harsher in their scoring than others, but this does not mean that they are more or less valid and taking the most/least harsh observation may mean that the results would be skewed in one direction. The solution adopted for this problem was to take the presence of an item, over its absence, whether it is a positive aspect or a negative aspect. For example the presence of litter would be taken over its absence and the presence of adequate safety surfacing would be taken over its absence. This should hopefully reduce any such bias and also it is feasible to assume that a fieldworker may be more likely to miss an item and mark it as absent than to mark it as present by mistake, for example, a fieldworker may miss glass in the play area, and note that it was absent, whereas they would be unlikely to write down that there was glass present when it was not. For practical purposes, the presence of an item, whether positive or negative, was coded as 1 and the absence of an item was coded as 0, which meant that it would be straightforward to take the maximum value when aggregating the data. For some of the questions it may not be immediately clear how the coding scheme was worked out and so the less obvious questions are discussed below.

***Details of Recoding for the Presence of a Variable***

For some questions the recode into presence or absence was straightforward, e.g. “Dog Faeces”, “Are there Pavements/Pathways?”, but some of the other questions require a little more of a description. A number of questions were worded with the phrase “free of” e.g. “Loose fill material is free of debris”, “equipment is free of cracks/holes” and these were essentially reversed so that the presence of debris or cracks/holes were taken over their absence. Thus No was coded as 1 since debris or crack/holes are present and Yes was coded as 0 since they are absent. The questions relating to supervision of children whilst on the equipment, “Children can be viewed in crawl spaces (look especially in the areas between the equipment and the ground)” and “Children can be viewed in all areas while on the equipment (No solid guards/hiding spaces)” were both recoded with the assumption that there must be something present to stop an adult being able to see a child such as a solid guard or screen. Therefore, the presence of such an item would mean that you would not be able to view children and so they were both recoded so that Yes was 0, and No was 1. “Enclosed spaces in the structure measure less than 3.5 inches or more than 9 inches” was recoded to account for the presence of a tight fitting enclosed space i.e. those between 3.5inches and 9inches, thus Yes became 0, and No became 1. Questions relating to the functionality and cleanliness of drinking fountains, toilets, changing areas/lockers and pay phones were recoded with the premise that there would be something present that makes the facility inadequate such as debris in the water fountain or dirty toilets. This meant that Yes was recoded as 0, as there was nothing present to stop the item functioning correctly and No was coded as 1, since there was something present which impaired the use of the item. In a similar way, questions regarding accessibility for persons with disabilities were recoded so that Not at all accessible was coded as 1 since there must be something present to stop someone with disabilities using the facility e.g. a non-paved surface unsuitable for a wheelchair or a pay phone that is too high to be used by someone in a wheelchair, and Totally accessible was coded as 0.

Data were aggregated by taking the maximum value of each variable i.e the presence over the absence using the aggregate function in SPSS and this meant

that there was only one response for each item in the checklist for each play area. This data set was used for all of the analysis.

### ***Missing Values and Anomalies***

Once aggregated, any missing values were identified and field notes written on the original checklists and photographs of the play areas were inspected to try to answer the item in question. If the item could be answered as present or absent from the field notes or photographs then it was updated. Any remaining missing values were declared as such in SPSS and so were not included in any analysis.

There were also some anomalies with the final counts and percentages in the data set that were not recognised at the cleaning stage or dealt with at the coding stage and these needed to be examined. These anomalies occurred where a feature's quality was dependent upon its presence or absence. For example there were some cases where there appeared to be more overflowing bins than litterbins themselves. This was due to error in completing the checklists where fieldworkers had mistakenly answered a question relating to a feature's quality negatively instead of as Not Applicable when they had already declared this feature as absent. Since, when aggregating the data, the presence of an aspect or feature was taken over its absence, it meant that these errant values were chosen. Every anomaly in the data set was checked by hand against the original paper copies of the audit tool and the photographs of each play area and corrected where necessary. Whilst doing this, it became clear that the two questions relating to ramps in the area had not been understood well by observers, since there were a large number of anomalies. This may be due to the layout of the questionnaire which meant that the question relating to the quality of the ramps in the play area fell on the following page to the question referring to the presence of ramps. It appeared that observers answered the question in relation to all paved surfaces rather than ramps. I chose to remove this question from the analysis. This meant that I had full confidence in the accuracy of the final dataset.

#### **3.3.7.4 Analysis**

All statistical analysis was conducted in SPSS for Windows v12.0 using the aggregated data set described above. Variations of all variables by high, medium and low quintiles of SIMGgla were calculated by cross tabulations with Chi Square used to test for significance. Variables were created in SPSS for the sum of the positive features and negative features present in each play area in order to create a type of summary score. A list of all of the variables included in the positive and negative scores can be found in Table 3.1.



**Table 3-1: Details of Variables that were Included in the Positive and Negative Scores**

<b>Positive Score</b> <b>A presence of:</b>	<b>Negative Score</b> <b>A presence of:</b>
<ul style="list-style-type: none"> <li>• <i>Lighting</i></li> <li>• <i>Shade</i></li> <li>• <i>Litterbins</i></li> <li>• <i>Fencing and gate/s</i></li> <li>• <i>Signs displaying the rules</i></li> <li>• <i>Benches</i></li> <li>• <i>Landscaping</i></li> <li>• <i>Art</i></li> <li>• <i>Sand-pit</i></li> <li>• <i>Climbing/sliding equipment</i></li> <li>• <i>Swings</i></li> <li>• <i>Spring Toys/See-Saws</i></li> <li>• <i>Roundabouts</i></li> <li>• <i>Safety surfacing underneath each type of equipment</i></li> <li>• <i>Adequately filled/maintained safety surfacing underneath each type of equipment</i></li> <li>• <i>Safety surfacing extending at least 6 feet around climbing/sliding equipment</i></li> <li>• <i>Safety Surfacing extends around the swings twice the height of the suspending bar</i></li> <li>• <i>Adults supervising when children are playing on equipment</i></li> <li>• <i>People are playing co-operatively in Play Area</i></li> <li>• <i>Police/park ranger</i></li> <li>• <i>Drinking fountains</i></li> <li>• <i>Toilets</i></li> <li>• <i>Changing Rooms/Lockers</i></li> <li>• <i>Pay Phone/s</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Dog Faeces</i></li> <li>• <i>Litter</i></li> <li>• <i>Natural litter (e.g. leaves/branches)</i></li> <li>• <i>Glass (inc bottles and broken glass)</i></li> <li>• <i>Graffiti</i></li> <li>• <i>Drug related litter</i></li> <li>• <i>Condoms</i></li> <li>• <i>Construction/renovation work to play area</i></li> <li>• <i>Overflowing litterbins</i></li> <li>• <i>Damage to benches</i></li> <li>• <i>Debris in Sandpit</i></li> <li>• <i>Trip Hazards in Play Area</i></li> <li>• <i>Equipment with rust</i></li> <li>• <i>Equipment with Broken/missing parts</i></li> <li>• <i>Equipment with chipping paint</i></li> <li>• <i>Debris on/in safety surfacing under individual types of equipment</i></li> <li>• <i>Highest platform on which a child could stand is greater than 6feet high</i></li> <li>• <i>Cracks/Holes in Climbing/sliding Equipment</i></li> <li>• <i>Tightly Enclosed Spaces in Climbing/Sliding Equipment</i></li> <li>• <i>Snag Hazards on Climbing/sliding Equipment</i></li> <li>• <i>Swing seats that are made from a hard/rigid material</i></li> <li>• <i>More than 2 swings per bay</i></li> <li>• <i>Toddler and Traditional Swings that are located in the same bay</i></li> <li>• <i>Broken/dirty drinking fountains, toilets, changing facilities and/or pay phones</i></li> <li>• <i>Features making the area or its facilities inaccessible to persons with a disability</i></li> <li>• <i>Screens/barriers which mean that children cannot be seen on equipment</i></li> <li>• <i>Enclosed crawls spaces which mean that children cannot be seen</i></li> <li>• <i>People arguing/fighting in play area</i></li> <li>• <i>Homeless persons loitering in play area</i></li> <li>• <i>People drinking alcohol/drunken in play area</i></li> <li>• <i>People smoking tobacco or other drugs in play area</i></li> </ul>
<b>Total number of possible positive items =30</b>	<b>Total number of possible negative items =51</b>

A proportional score was also created which would control for the number of pieces of equipment present in a play area since only the types of equipment present in the play area would be used to create the score. A variable was created in SPSS which was the Positive Score divided by the number of possible items which could be positive in each play area, i.e. the total number of positive questions that were answered (as present/absent) in each play area. This means that, for instance, the questions relating to features of swings would not be included in play areas that did not contain swings. This was also completed for the negative features in the play area. Thus, four scores were created to summarise the quality of the play areas: the count of positive features, the proportion of positive features present, the count of negative features present and the proportion of negative features present.

The mean number and proportion of positive and negative features per play area per quintile were compared across high, medium and low quintiles of SIMDgla using ANOVA.

## **3.4 Results**

### ***3.4.1 Description of Sample***

One hundred and forty one play area sites in Glasgow were visited with 100 audits completed between January and May 2006. Of the 100 play areas that were audited, 36 areas were the most deprived quintile, 37 were in the middle quintile and 27 were in least deprived quintile of SIMDgla. Audits were not conducted at 41 sites as, on arrival to the designated address, either there was not a play area open and present at the location; it contained a different type of play facility; or because the site had been double counted. Details of the status of the sites visited by high, medium and low deprivation can be seen in Table 3.2. In seven play areas, the equipment had been removed, but it was clear that there used to be a play area present since the land was clearly defined and/or separated from other areas, there was safety surfacing present and there were sometimes marks in the ground where equipment had been removed. An example of a play area where equipment had been removed is shown in Figure 3.1.

**Figure 3-1 - Removed Play Area**

This is distinct from the three sites that were visited where there was no clear evidence of a play area or of a maintained area for play e.g. a ‘kick-about area’ existing at that site, for example new houses were built at one site and another was a triangular patch of grass at a road junction. ‘Kick-about areas’ are maintained areas of grass or tarmac intended as a play space, but with no formal equipment provided. These were found at five sites with another five sites containing sports pitches or courts. Additionally, one site in an area of low deprivation was a skate park and three sites contained modern ‘multi-purpose games courts’ (MPGC). These are enclosed courts with markings and equipment for football, netball or basketball targeted towards older children and teenagers. Three sites were under construction with barriers and signage denoting prohibited access and 14 sites were double counted in the original information from the council. Sites which were marked as double counted were play areas where there was only one play facility present despite records indicating that there should be multiple play areas at the address. On some occasions it appeared that where refurbishment had taken place and extra equipment introduced, the site had been marked as having an extra play facility. Additionally, this was a problem at some sites that contained equipment for different age ranges e.g. pre school play equipment and more adventurous

equipment for older children. It was not clear how the city council were counting the facilities at an address, and so where sites had multiple pieces of equipment within one defined area, they were only counted once. Most of these occurrences of double counting were found at play area sites in areas of low deprivation.

**Table 3-2 Description of Play Area Sites Visited by High, Medium and Low Deprivation**

<b>Play Area Site Status</b>	<b>Low Deprivation</b>	<b>Medium Deprivation</b>	<b>High Deprivation</b>	<b>Total</b>
Removed	1	3	3	7
Under construction	1	1	1	3
No sign of any play facility	0	1	2	3
Skate park	1	0	0	1
Sports pitch/court	0	4	1	5
Multi-Purpose Games Court (MPGC)	0	1	2	3
'Kick-about' area	1	3	1	5
Double counted	9	1	4	14
<b>(Total) Not available for audit</b>	<b>12</b>	<b>15</b>	<b>14</b>	<b>41</b>
<b>Available for audit</b>	<b>27</b>	<b>37</b>	<b>36</b>	<b>100</b>
<b>(Total) Visited</b>	<b>39</b>	<b>52</b>	<b>50</b>	<b>141</b>

### ***3.4.2 Inter-Rater Reliability Results***

The play areas were audited by at least one of five observers, including myself. I audited 16 play areas alone, before recruiting fieldworkers and, of these, 14 were in the least deprived quintile of SIMDgla. All of the other play areas were audited by at least two observers and thirteen play areas were audited by all five observers as part of the training process. In total, I audited 34 of the 100 play areas and the other observers audited between 42 and 54 play areas each.

Although the decision was taken to code for the presence of a feature over the absence rather than weighting observers' results or using a gold-standard method of comparing fieldworkers' responses, an inter-observer correlation was conducted using a Pearson correlation to establish the variation between the scoring of fieldworkers. Rather than comparing auditors across all variables individually, they were compared on the summed positive and negative features. 3.3 shows the matrix of correlations between each possible pairing for positive features count. All of the pairings had good correlations above 0.8 with a significance level of less than 0.01. The average overall inter-rater correlation

for positive features was 0.935. Table 3.4 shows the correlations between fieldworkers for negative counts. The correlations for negative counts were poorer than for the positive counts, but all but one pair of fieldworkers had a correlation with a significance level less than 0.05, with most correlating with a significance level of 0.01. The average overall inter-rater correlation for negative features was 0.696. Factors which might influence the inter-rater agreement include the usability and clarity of the questions themselves and their scoring methods as well as training of the fieldworkers. Further scrutiny of the checklist and training of fieldworkers with discussions about questions which yield different values after each session may help to improve inter-observer reliability.

**Table 3-3 Correlations between Fieldworkers for the Count of Positive Features Present**

<b>Fieldworker ID Positive Count Correlations</b>		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>A</b>	Pearson Correlation	1	0.862**	0.953**	0.872**	0.918**
	2 Tailed T-Test Significance P-Value	N/A	0.000	0.000	0.000	0.000
	N	34	13	13	13	18
<b>B</b>	Pearson Correlation	0.862**	1	0.934**	0.970**	0.958**
	2 Tailed T-Test Significance P-Value	0.000	N/A	0.000	0.000	0.000
	N	13	43	20	30	19
<b>C</b>	Pearson Correlation	0.953**	0.934**	1	0.948**	0.947**
	2 Tailed T-Test Significance P-Value	0.000	0.000	N/A	0.000	0.000
	N	13	20	42	23	28
<b>D</b>	Pearson Correlation	0.872**	0.970**	0.948**	1	0.985**
	2 Tailed T-Test Significance P-Value	0.000	0.000	0.000	N/A	0.000
	N	13	30	23	54	30
<b>E</b>	Pearson Correlation	0.918**	0.958**	0.947**	0.985**	1
	2 Tailed T-Test Significance P-Value	0.000	0.000	0.000	0.000	N/A
	N	18	19	28	30	53

**Table 3-4 Correlations between Fieldworkers for the Count of Negative Features Present**

<b>Fieldworker ID Negative Count Correlations</b>		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>A</b>	Pearson Correlation	1	0.685**	0.742**	<b>0.683*</b>	0.711**
	2 Tailed T-Test Significance P-Value	N/A	0.010	0.004	0.010	0.001
	N	34	13	13	13	18
<b>B</b>	Pearson Correlation	0.685**	1	0.418	0.863**	0.706**
	2 Tailed T-Test Significance P-Value	0.010	N/A	0.067	0.000	0.001
	N	13	43	20	30	19
<b>C</b>	Pearson Correlation	0.742**	0.418	1	0.715**	0.584**
	2 Tailed T-Test Significance P-Value	0.004	0.067	N/A	0.000	0.001
	N	13	20	42	23	28
<b>D</b>	Pearson Correlation	0.683*	0.863**	0.715**	1	0.849**
	2 Tailed T-Test Significance P-Value	0.010	0.000	0.000	N/A	0.000
	N	13	30	23	54	30
<b>E</b>	Pearson Correlation	0.711**	0.706**	0.584**	0.849**	1
	2 Tailed T-Test Significance P-Value	0.001	0.001	0.001	0.000	N/A
	N	18	19	28	30	53

Although correlations may not be wholly sufficient in determining whether there is good inter-rater agreement, since no adjustments were carried out on the basis of these results, it was decided that it was not necessary to examine Bland and Altman plots<sup>2</sup>.

### ***3.4.3 Variables by Deprivation***

Some aspects of the play areas were worse in areas of high deprivation, for example, play areas were significantly more likely to have litter and glass (p-value < 0.000), damaged benches (p-value = 0.015), inadequate safety surfacing (p-value = 0.028), broken or missing parts (p-value < 0.000) and rust on climbing and sliding equipment (p-value = 0.006) in deprived areas compared to those in the least deprived. Additionally, play areas in areas of low deprivation were significantly more likely to have litter bins (p-value = 0.007) and landscaping (p-value < 0.000). These results can be seen more in full in Tables 3.5 to 3.11, with statistically significant results shown in bold.

#### ***Types of Equipment Present in Play Areas***

The most popular type of equipment in the play areas was climbing and sliding equipment with 86% of play areas containing this type of play apparatus. Roundabouts were the least prevalent type of equipment overall, and the only type of which provision significantly varied by social deprivation; being less prevalent in areas of medium deprivation compared to those in areas of high or low deprivation (p-value = 0.011). These figures can be seen in Table 3.5.

#### ***Aspects Relating to the Physical Environment of the Play Areas.***

Less than one-quarter of play areas contained dog faeces and although there were slightly fewer play areas with this present in areas of low social deprivation than in the other two quintiles, the difference is not significant. The numbers of play areas containing litter was significantly lower in play areas with low deprivation, where just less than 60% of areas contained some litter, compared to those in areas of middling and high deprivation, with over 90% of play areas

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<sup>2</sup> Bland and Altman plots are a statistical method used to compare two measurement techniques. The difference between the two measurements are plotted against the average of the two techniques and the scatter plots produced can be examined for any systematic bias and any outliers identified. (Field, 2005).

containing litter. The percentage of play areas with litter bins present was significantly greater in play areas in areas of low deprivation compared to those in areas of middling or high deprivation. Very few of the litter bins were found to be overflowing in any of the play areas. The level of natural litter (e.g. leaves or braches) was constant across all play areas. More play areas contained glass in areas of high deprivation with over 90% of play areas containing glass bottles or broken glass compared with 76% in areas of middling deprivation and 33% in areas of low deprivation. Both drug related litter and condoms were seldom found in any play areas although none at all were found in play areas in areas of low deprivation. There was no difference in the presence of graffiti in play areas across the three quintiles of deprivation, but the percentage of play areas containing graffiti was very high in across all quintiles with 93% of all play areas audited containing graffiti.

Although the percentages of play areas with lighting were low across all play areas, there was a significant linear trend with more play areas in areas of high deprivation having lighting compared to those in areas of middling and low deprivation. There were significantly more play areas with shade available in areas of low deprivation compared to those in middling or high deprivation. Shade may be a proxy for trees or greenery present and so play areas which are situated in larger parks may be more likely to offer shade than those situated in housing estates. On this note, over 90% of play areas in areas of low deprivation offered landscaping compared to 40% and 53% in areas of middling and high deprivation, respectively.

The presence of signs displaying the rules were found in over half of the play areas in areas of low deprivation compared to around one-quarter of those in areas of middling and high deprivation. Although only 5% of play areas are detailed as being under construction, the figure is artificially low since those which were under substantial construction were not audited since safe entrance could not be guaranteed. Around 40% of play areas had a fence surrounding them with a gate for access and none of the play areas audited had adequate disabled access. Over 85% of all play areas had paths and pavements present, however almost half of these were damaged, cracked or uneven. Although there was no significant difference between the percentages of play areas with seating or benches present, those in play areas in areas of high deprivation were



significantly more likely to be damaged or defaced than those in areas of middling or low deprivation. Very little art or sculpture was found in play areas and although slightly less were found in play areas with middling deprivation compared to those with high or low deprivation, there was no significant trend.

Around one third of play areas contained equipment with solid guards and around one sixth contained shielded crawl spaces which make it difficult to view and supervise children whilst they were playing. These were both constant across all quintiles. Very few sand-pits (n=4), water fountains (n=1), public toilets (n=4), changing facilities (n=1) or pay phones (n=2) were found in play areas in Glasgow and as such no calculations are presented on the quality of these items since in most cases there were not adequate cell frequencies to perform Chi-Square calculations.

### ***Aspects Relating to the Social Environment of the Play Areas***

Figures relating to the social environment of the play areas can be seen in Table 3.7. Where there were children present, in 73% of cases they were supervised by an adult and although there were more likely to be adults supervising in areas of low deprivation, the numbers of occasions where children were playing were small (11 in total) and so no significant trend was found. There was a low presence of park rangers or police present in the park, however in general when there were people present in the play areas they were playing in a friendly manner, were not drunk or drinking and were not smoking. No homeless people were found in the play areas.

### ***Aspects Relating to Climbing or Sliding Equipment***

The results for the quality of climbing and sliding equipment can be seen in Table 3.8. Whilst most climbing and sliding equipment had safety surfacing underneath it, the surfacing did not extend the appropriate distance around equipment in most play areas, was not adequately filled in almost half and contained debris in three quarters of equipment. The surfacing was more likely to contain debris or be inadequately filled in areas of high deprivation (p-values = 0.005 and 0.028, respectively). Climbing or sliding equipment was found to be over 6 feet tall on around one third of occasions and this was similar across quintiles. Over three quarters of the sliding and climbing equipment was rusty

and this was more likely in areas in neighbourhoods of high deprivation (p-value= 0.006). Half of the climbing or sliding equipment present had trip hazards around it or the equipment contained cracks or holes and these both showed a linear trend with more in play areas in high deprivation than low and medium deprivation (p-values= 0.006 and 0.040, respectively). The equipment contained enclosed spaces (trapping hazards) on 47% of occasions, and this showed a linear trend with more in highly deprived areas (p-value = 0.021). Over half of the climbing or sliding equipment contained broken or missing parts, but this was significantly worse in play areas in highly deprived areas with over 80% of climbing and sliding equipment in deprived areas compared to 32% in the least deprived areas (p-value < 0.000). Most of this type of equipment had peeling or chipping paint and this was found on more occasions in highly deprived areas (p-value=0.010). Snagging hazards were found on over half of the equipment and this showed a trend with greater numbers in deprived areas, but this was not significant (p-value = 0.087).

### ***Aspects Relating to Swings***

The quality of swings in play areas in neighbourhoods of high, medium and low social deprivation is shown in Table 3.9. Over two thirds of play areas contained swings, with slightly fewer being found in play areas in middling deprivation compared to low and high deprivation, although this was not found to be significant. The presence of safety surfacing was high across all quintiles; however most did not extend around the swings at the recommended distance of twice the height of the suspending bar, only around half of the surfacing was adequately filled or maintained and the surfacing contained debris on 70% of occasions. The latter two attributes showed a slight trend towards significance with greater percentages of surfacing being poor in high deprivation than in low. All swing seats were made from hard, rigid material and over 80% of the swings were found to be rusty, have chipped paint or contain missing or broken parts. There were slightly fewer swings with these problems in areas of low deprivation, however this was not significant. Few play areas sited toddler swings and normal swings within the same swing bay. Around 16% had more than two swings per bay and this was more likely in play areas in areas of low deprivation (p-value=0.032).

***Aspects Relating to Roundabouts***

Frequencies and trends of the safety aspects relating to roundabouts can be seen in Table 3.10 and are now discussed. Over one-third of play areas contained roundabouts but their presence showed a U shaped curve with more present in areas of high and low deprivation. As with other equipment, almost all roundabouts had safety surfacing underneath and whilst this followed a U-shaped curve similar to the provision of roundabouts, it was not significant. The safety surfacing was adequately filled underneath half of the roundabouts but contained debris in almost two-thirds of occasions. These showed trends in the expected direction, but did not reach significance. Over half of the roundabouts contained rust, missing or broken parts and peeling or chipping paint. The roundabouts in play areas in neighbourhoods in low deprivation had more of these poor features; however, the trend in this non expected direction was not significant.

***Aspects Relating to Spring Toys and/or See-saws***

The quality of the spring toys and see-saws present in the play areas is shown in Table 3.11 and now discussed. Over half of the play areas contained see-saws or spring toys and there was no significant difference in the provision by deprivation. All see-saws and spring toys contained safety surfacing; however it was only adequately filled or maintained underneath just over half of them. Only 27% of roundabouts in play areas within highly deprived areas contained adequately filled or maintained surfacing compared with 70% and 63% in the middle and low quintiles of SIMDgla, respectively (p-value = 0.015). Most roundabouts contained rust, missing or broken parts and chipping or peeling paint.

**Table 3-5 Numbers and Percentages of Play Areas in High, Medium and Low Social Deprivation with Different Equipment Present.**

Type of equipment present in play areas	Percentage and number of all play areas with equipment <b>present</b> (N=100)		Percentage and number of play areas in areas of <b>low deprivation</b> with equipment <b>present</b> (N=27)		Percentage and number of play areas in areas of <b>medium deprivation</b> with equipment <b>present</b> (N=37)		Percentage and number of play areas in areas of <b>high deprivation</b> with equipment <b>present</b> (N=36)		Pearson Chi-Square Value	Asymp. Sig (2-Sided)
	%	N	%	n	%	n	%	n		
Swings	68.0	68	77.8	21	54.1	20	75.0	27	5.304	0.710
Climbing Frames/Slides	86.0	86	81.5	22	83.8	31	91.7	33	1.569	0.456
<b>Roundabouts</b>	<b>38.0</b>	<b>38</b>	<b>48.1</b>	<b>13</b>	<b>18.9</b>	<b>7</b>	<b>50.0</b>	<b>18</b>	<b>9.098</b>	<b>0.011*</b>
Spring Toys/See-Saws	55.0	55	59.3	16	45.9	17	61.1	22	1.967	0.374
Sand-pits	4.0	4	7.4	2	2.7	1	2.8	1	1.119	0.572

Significant results are denoted in bold

**Table 3-6 Numbers and Percentages of Play Areas in Areas of High, Medium and Low Social Deprivation with Different Aspects of the Physical Environment Present**

Aspects relating to physical environment of play areas	Percentage and number of all play areas with aspect <b>present</b> (N=100)		Percentage and number of play areas in areas of <b>low deprivation</b> with aspect <b>present</b> (N=27)		Percentage and number of play areas in areas of <b>medium deprivation</b> with aspect <b>present</b> (N=37)		Percentage and number of play areas in areas of <b>high deprivation</b> with aspect <b>present</b> (N=36)		Pearson Chi-Square Value	Asymp. Sig (2-Sided)
	%	n	%	n	%	n	%	n		
Dog Faeces	21.0	21	18.5	5	21.6	8	22.2	8	0.141	0.932
<b>Litter</b>	<b>85.0</b>	<b>85</b>	<b>59.3</b>	<b>16</b>	<b>94.6</b>	<b>35</b>	<b>94.4</b>	<b>34</b>	<b>19.221</b>	<b>0.000***</b>
Natural Litter	92.0	92	88.9	24	97.3	36	88.9	32	2.239	0.326
<b>Glass</b>	<b>70.0</b>	<b>70</b>	<b>33.3</b>	<b>9</b>	<b>75.7</b>	<b>28</b>	<b>91.7</b>	<b>33</b>	<b>25.901</b>	<b>0.000***</b>
Graffiti	93.0	93	92.6	25	89.2	33	97.2	35	1.818	0.403
Drug Related Litter	5.0	5	0.0	0	5.4	2	8.3	3	2.276	0.320
Condoms	2.0	2	0.0	0	2.7	1	2.8	1	0.755	0.685
<b>Lighting</b>	<b>22.0</b>	<b>22</b>	<b>7.4</b>	<b>2</b>	<b>18.9</b>	<b>7</b>	<b>36.1</b>	<b>13</b>	<b>7.733</b>	<b>0.021*</b>
<b>Shade</b>	<b>35.0</b>	<b>35</b>	<b>63.0</b>	<b>17</b>	<b>24.3</b>	<b>9</b>	<b>25.0</b>	<b>9</b>	<b>12.716</b>	<b>0.002**</b>
<b>Under Construction</b>	<b>5.0</b>	<b>5</b>	<b>14.8</b>	<b>4</b>	<b>0.0</b>	<b>0</b>	<b>2.8</b>	<b>1</b>	<b>7.797</b>	<b>0.020*</b>
Fence & Gate	40.0	40	48.1	13	40.5	15	33.3	12	1.418	0.492
<b>Signage</b>	<b>34.0</b>	<b>34</b>	<b>55.6</b>	<b>15</b>	<b>27.0</b>	<b>10</b>	<b>25.0</b>	<b>9</b>	<b>7.692</b>	<b>0.021*</b>
Disabled Access	0.0	0	0.0	0	0.0	0	0.0	0	n/a	n/a
<b>Litter Bins</b>	<b>56.0</b>	<b>56</b>	<b>81.5</b>	<b>22</b>	<b>48.6</b>	<b>18</b>	<b>44.4</b>	<b>16</b>	<b>9.877</b>	<b>0.007**</b>
† Overflowing Bins	7.1	4 (N=56)	4.5	1 (N=22)	5.6	1 (N=18)	12.5	2 (N=16)	0.984	0.611
Pavements	87.0	87	88.9	24	86.5	32	86.3	31	0.119	0.942
† Damaged Pavements	47.1	41 (N=87)	41.7	10 (N=24)	50.0	16 (N=32)	48.4	15 (N=31)	0.413	0.813
Benches	70.0	70	77.8	21	67.6	25	66.7	24	1.073	0.585
† <b>Damaged Benches</b>	<b>48.6</b>	<b>34 (N=70)</b>	<b>23.8</b>	<b>5 (N=21)</b>	<b>52.0</b>	<b>13 (N=25)</b>	<b>66.7</b>	<b>16 (N=24)</b>	<b>8.418</b>	<b>0.015*</b>

Significance of  $\chi^2$  test for trend: \* <0.05, \*\*<0.01, \*\*\*<0.001**Significant results are denoted in bold**

† The denominators used for these calculations are based on the total number of respective features present rather than total numbers of play areas. For example, the table shows the number of bins which were overflowing, and the percentage is calculated by using the number of bins present as the denominator rather than the total number of play areas. Where this alternative denominator is used, it is detailed in brackets beside the number of observations e.g. (N=56)

**Table 3-7 Numbers and Percentages of Play Areas in Areas of High, Medium and Low Social Deprivation with Different Aspects of the Physical Environment Present**

Aspects relating to physical environment of play areas	Percentage and number of all play areas with aspect <b>present</b> (N=100)		Percentage and number of play areas in areas of <b>low deprivation</b> with aspect <b>present</b> (N=27)		Percentage and number of play areas in areas of <b>medium deprivation</b> with aspect <b>present</b> (N=37)		Percentage and number of play areas in areas of <b>high deprivation</b> with aspect <b>present</b> (N=36)		Pearson Chi-Square Value	Asymp. Sig (2-Sided)
	%	N	%	n	%	n	%	n		
<b>Landscaping</b>	<b>59.0</b>	<b>59</b>	<b>92.6</b>	<b>25</b>	<b>40.5</b>	<b>15</b>	<b>52.8</b>	<b>19</b>	<b>18.384</b>	<b>0.000***</b>
Art	12.0	12	22.2	6	2.7	1	13.9	5	5.822	0.054
Water Fountains	1.0	1	0.0	1	0.0	0	0.0	0	n/a	n/a
Public Toilets	4.0	4	7.4	2	0.0	0	5.6	2	2.585	0.275
Changing Facilities	1.0	1	3.7	1	0.0	0	0.0	0	2.731	0.255
Pay Phone	2.0	2	3.7	1	0.0	0	2.8	1	1.266	0.531
Solid Guards (cannot view children on equipment)	31.0	31	33.3	9	32.4	12	27.8	10	0.279	0.870
Shielded crawl spaces (cannot view children under equipment)	16.0	16	11.1	3	18.9	7	16.7	6	8.223	0.073

Significance of  $\chi^2$  test for trend: \* <0.05, \*\*<0.01, \*\*\*<0.001**Significant results are denoted in bold**

**Table 3-8 Numbers and Percentages of Play Areas in Areas of High, Medium and Low Social Deprivation with Different Aspects of the Social Environment Present**

Aspects relating to the social environment of play areas	Percentage and number of all play areas with aspect <b>present</b> (N=100)		Percentage and number of play areas in areas of <b>low deprivation</b> with aspect <b>present</b> (N=27)		Percentage and number of play areas in areas of <b>medium deprivation</b> with aspect <b>present</b> (N=37)		Percentage and number of play areas in areas of <b>high deprivation</b> with aspect <b>present</b> (N=36)		Pearson Chi-Square Value	Asymp. Sig (2-Sided)
	%	n	%	n	%	n	%	n		
† Children are supervised by an adult	73.3	11 (N=15)	100.0	6 (N=6)	50.0	1 (N=2)	57.1	4 (N=7)	3.677	0.159
† Children are playing positively	100.0	15 (N=15)	100.0	7 (N=7)	100.0	2 (N=2)	100.0	6 (N=6)	n/a	n/a
† People are arguing/fighting	6.7	1 (N=16)	12.5	1 (N=8)	0.0	0 (N=2)	0.0	0 (N=6)	1.067	0.587
Police/Park Ranger	5.0	5	3.7	1	5.4	2	5.6	2	0.132	0.936
Homeless Persons	0.0	0	0.0	0	0.0	0	0.0	0	n/a	n/a
People drinking alcohol/drunk	0.0	0	0.0	0	0.0	0	0.0	0	n/a	n/a
People smoking tobacco or other drugs	0.0	0	0.0	0	0.0	0	0.0	0	n/a	n/a

Significance of  $\chi^2$  test for trend: \* <0.05, \*\*<0.01, \*\*\*<0.001**Significant results are denoted in bold**

† The denominators used for these calculations are based on the total number of respective features present rather than total numbers of play areas. For example, the table shows the number of children who were supervised by an adult, and the percentage is calculated by using the number of children present as the denominator rather than the total number of play areas. Where this alternative denominator is used, it is detailed in brackets beside the number of observations e.g. (N=15)

**Table 3-9 Numbers and Percentages of Play Areas with High, Medium and Low Social Deprivation with Different Aspects Relating to Climbing and Sliding Equipment Present**

Aspect Relating to Climbing/Sliding Equipment	Percentage and number of all play areas with aspect <b>present</b> (N=86)		Percentage and number of play areas in areas of <b>low deprivation</b> with aspect <b>present</b> (N=22)		Percentage and number of play areas in areas of <b>medium deprivation</b> with aspect <b>present</b> (N=31)		Percentage and number of play areas in areas of <b>high deprivation</b> with aspect <b>present</b> (N=33)		Pearson Chi-Square Value	Asymp. Sig (2-Sided)
	%	n	%	n	%	n	%	n		
Safety Surfacing	88.4	76	90.9	20	83.9	26	90.9	30	0.956	0.620
†Safety Surfacing extends 6ft around equipment	15.8	12 (N=76)	20.0	4 (N=20)	19.2	5 (N=26)	10.0	3 (N=30)	1.254	0.534
† <b>Debris in/on safety surfacing</b>	<b>73.7</b>	<b>56 (N=76)</b>	<b>55.0</b>	<b>11 (N=20)</b>	<b>65.4</b>	<b>17 (N=26)</b>	<b>93.3</b>	<b>28 (N=30)</b>	<b>10.498</b>	<b>0.005**</b>
† <b>Surfacing Adequately Filled</b>	<b>48.7</b>	<b>37 (N=76)</b>	<b>65.0</b>	<b>13 (N=20)</b>	<b>57.7</b>	<b>15 (N=26)</b>	<b>30.0</b>	<b>9 (N=30)</b>	<b>7.168</b>	<b>0.028*</b>
Equipment >6ft tall	33.7	29	27.3	6	35.5	11	36.4	12	0.556	0.757
<b>Rust</b>	<b>77.9</b>	<b>67</b>	<b>54.5</b>	<b>12</b>	<b>80.6</b>	<b>25</b>	<b>90.9</b>	<b>30</b>	<b>10.352</b>	<b>0.006**</b>
<b>Trip Hazards</b>	<b>50.0</b>	<b>43</b>	<b>22.7</b>	<b>5</b>	<b>51.6</b>	<b>16</b>	<b>66.7</b>	<b>22</b>	<b>10.244</b>	<b>0.006**</b>
<b>Cracks/Holes</b>	<b>52.3</b>	<b>45</b>	<b>31.8</b>	<b>7</b>	<b>51.6</b>	<b>16</b>	<b>66.7</b>	<b>22</b>	<b>6.436</b>	<b>0.040*</b>
<b>Enclosed Spaces</b>	<b>46.5</b>	<b>40</b>	<b>22.7</b>	<b>5</b>	<b>48.4</b>	<b>15</b>	<b>22.7</b>	<b>5</b>	<b>7.681</b>	<b>0.021*</b>
<b>Broken/Missing Parts</b>	<b>59.3</b>	<b>51</b>	<b>31.8</b>	<b>7</b>	<b>51.6</b>	<b>16</b>	<b>31.8</b>	<b>7</b>	<b>16.568</b>	<b>0.000***</b>
<b>Chipping/Peeling Paint</b>	<b>86.0</b>	<b>74</b>	<b>68.2</b>	<b>15</b>	<b>87.1</b>	<b>27</b>	<b>68.2</b>	<b>15</b>	<b>9.156</b>	<b>0.010*</b>
Snag Hazards	58.1	50	45.5	10	51.6	16	45.5	10	4.883	0.087

Significance of  $\chi^2$  test for trend: \* <0.05, \*\*<0.01, \*\*\*<0.001**Significant results are denoted in bold**

†The denominators used for these calculations are based on the numbers of equipment with safety surfacing present rather than total number of climbing frames/slides and this is shown in brackets beside the number of observations eg (N=30).



**Table 3-10 Numbers and Percentages of Play Areas with High, Medium and Low Social Deprivation with Different Aspects Relating to Swings Present**

Aspect Relating to Swings	Percentage and number of all play areas with aspect <b>present</b> (N=68)		Percentage and number of play areas in areas of <b>high deprivation</b> with aspect <b>present</b> (N=27)		Percentage and number of play areas in areas of <b>medium deprivation</b> with aspect <b>present</b> (N=20)		Percentage and number of play areas in areas of <b>low deprivation</b> with aspect <b>present</b> (N=21)		Pearson Chi-Square Value	Asymp. Sig (2-Sided)
	%	n	%	n	%	n	%	n		
Safety Surfacing	94.1	64	99.3	26	95.0	19	90.5	19	0.763	0.683
†Surface around swings is twice the height of the suspending bar	6.3	4 (N=64)	11.5	3 (N=26)	5.3	1 (N=19)	0.0	0	2.539	0.281
†Debris in/on Safety Surfacing	70.3	45 (N=64)	76.9	20 (N=26)	68.4	13 (N=19)	63.2	12	1.043	0.594
†Safety Surfacing adequately filled	54.7	35 (N=64)	50.0	13 (N=26)	52.6	10 (N=19)	63.2	12	0.813	0.666
‡Hard/Rigid Swing Seats	100.0	67 (N=67)	100.0	26 (N=26)	100.0	20	100.0	21	n/a	n/a
<b>More than 2 swings per bay</b>	<b>16.2</b>	<b>11</b>	<b>11.1</b>	<b>3</b>	<b>5.0</b>	<b>1</b>	<b>33.3</b>	<b>7</b>	<b>6.912</b>	<b>0.032*</b>
Toddler and Regular Swings in Same bay	7.4	5	3.7	1	5.0	1	14.3	3	2.172	0.338
Rust	79.4	54	81.5	22	85.0	17	71.4	15	1.271	0.530
Broken/Missing Parts	79.4	54	85.2	23	90.0	18	61.9	13	5.859	0.053
Chipping/Peeling Paint	86.8	59	88.9	24	90.0	18	81.0	17	0.906	0.636

Significance of  $\chi^2$  test for trend: \* <0.05, \*\*<0.01, \*\*\*<0.001**Significant results are denoted in bold**

†The denominators used for these calculations are based on the numbers of equipment with safety surfacing present rather than total number of swings. The denominator used is shown in brackets beside the total number of observations eg (N=26).

‡One play area in an area of high social deprivation, contained swing supports, but all of the swing seats were missing. Thus, this question was not applicable for this site and the denominator for this calculation was reduced by one i.e from 68 to 67 when considering all areas and from 27 to 26 for those in areas of high deprivation.

**Table 3-11 Numbers and Percentages of Play Areas with High, Medium and Low Social Deprivation with Different Aspects Relating to Roundabouts Present**

Aspect Relating to Roundabouts	Percentage and number of all play areas with aspect <b>present</b>		Percentage and number of play areas in areas of <b>low deprivation</b> with aspect <b>present</b> (N=21)		Percentage and number of play areas in areas of <b>medium deprivation</b> with aspect <b>present</b>		Percentage and number of play areas in areas of <b>high deprivation</b> with aspect <b>present</b> (N=27)		Pearson Chi-Square Value	Asymp. Sig (2-Sided)
	%	n	%	n	%	n	%	n		
Safety Surfacing	97.4	37	100.0	13	85.7	6	100.0	18	4.548	0.103
†Debris in/on Safety Surfacing	62.2	23 (N=37)	38.5	5 (N=13)	66.7	4 (N=6)	77.8	14 (N=18)	5.023	0.081
†Safety Surfacing Adequately Filled	54.1	20 (N=37)	69.2	9 (N=13)	66.7	4 (N=6)	38.9	7 (N=18)	3.257	0.196
Rust	65.8	25	69.2	4	71.4	5	61.1	11	0.342	0.843
Missing/broken Parts	55.3	21	61.5	8	57.1	4	50.0	9	0.419	0.811
Peeling/Chipping Paint	68.4	26	76.9	10	71.4	5	61.1	11	0.909	0.635

Significance of  $\chi^2$  test for trend: \* <0.05, \*\*<0.01, \*\*\*<0.001

**Significant results are denoted in bold**

†The denominators used for these calculations are based on the numbers of equipment with safety surfacing present rather than total number of roundabouts. The alternative denominator used is detailed in brackets beside the number of observations eg (N=37).

**Table 3-12 Numbers and Percentages of Play Areas with High, Medium and Low Social Deprivation with Different Aspects Relating to Spring Toys/See-saws Present**

Aspect Relating to Spring Toys/See-saws	Percentage and number of all play areas with aspect <b>present</b>		Percentage and number of play areas in areas of <b>low deprivation</b> with aspect <b>present</b>		Percentage and number of play areas in areas of <b>medium deprivation</b> with aspect <b>present</b>		Percentage and number of play areas in areas of <b>high deprivation</b> with aspect <b>present</b>		Pearson Chi-Square Value	Asymp. Sig (2-Sided)
	%	n	%	n	%	n	%	n		
Safety Surfacing	100.0	55	100.0	16	100.0	17	100.0	22	n/a	n/a
†Debris on/in Safety Surfacing	70.9	39 (N=55)	62.5	10 (N=16)	58.8	10 (N=17)	86.4	19 (N=22)	4.229	0.117
<b>†Safety Surfacing Adequately Filled</b>	<b>50.9</b>	<b>28 (N=55)</b>	<b>62.5</b>	<b>10 (N=16)</b>	<b>70.6</b>	<b>12 (N=17)</b>	<b>27.3</b>	<b>6 (N=22)</b>	<b>8.412</b>	<b>0.015*</b>
Rust	72.7	40	62.5	10	76.5	13	77.3	17	1.193	0.551
Missing/Broken Parts	65.5	36	62.5	10	70.6	12	63.6	14	0.292	0.864
Chipping/Peeling Paint	80.0	44	75.0	12	76.5	13	86.4	19	0.939	0.625

Significance of  $\chi^2$  test for trend: \* <0.05, \*\*<0.01, \*\*\*<0.001

**Significant results are denoted in bold**

†The denominators used for these calculations are based on the numbers of equipment with safety surfacing present rather than total number of spring toys/see-saws. Where an alternative denominator is used, it is detailed in brackets beside the number of observations e.g. (N=55).

### 3.4.4 Positive and Negative Features

The features of the play area were separated into positive and negative features and compared using ANOVA across quintiles of deprivation and the results are shown in Tables 3.12 and 3.13. The count of positive features in play areas was greater in play areas in neighbourhoods of low social deprivation than those in areas of middling or high deprivation. Concurrently, there were fewer negative features in play areas in neighbourhoods with low deprivation than in those with high deprivation. When comparing the proportional score across quintiles a similar pattern was found with a greater proportion of possible positive features present in play areas in areas of low deprivation than those in middling and high deprivation. Similarly, there was a lower proportion of possible negative features found in play areas in areas of low deprivation than in areas of middling and high deprivation. All ANOVA trends were found to be statistically significant.

**Table 3-13 Comparison of the Mean Counts of Positive and Negative Features per Play Area per Quintile of Deprivation**

	Mean count of positive features per play area per quintile of SIMDgla		Mean count of negative features per play area per quintile of SIMDgla	
Quintile of Deprivation	Mean count	Std. Dev	Mean count	Std dev
Least deprived	11.9	5.0	14.9	8.4
Middling	7.2	5.6	15.5	6.8
Most deprived	9.1	4.8	20.0	5.6
Total	9.2	5.4	17.0	7.2
Sig. (ANOVA)	<b>0.003</b> (F=6.38)		<b>0.005</b> (F=5.71)	

Significant results are denoted in bold

**Table 3-14 Comparison of the Mean Proportions of Positive and Negative Features per Play Area per Quintile of Deprivation**

	Mean proportion of positive features per play area per Quintile of SIMDgla		Mean proportion of negative features per play area per Quintile of SIMDgla	
Quintile of Deprivation	Mean proportion	Std. Dev	Mean proportion	Std dev
Least deprived	0.45	0.17	0.39	0.13
Middling	0.29	0.19	0.40	0.13
Most deprived	0.33	0.13	0.48	0.14
Total	0.35	0.18	0.43	0.14
Sig. (ANOVA)	<b>0.000</b> (F=15.78)		<b>0.000</b> (F=10.25)	

Significant results are denoted in bold

## 3.5 Discussion

This section of research set out to examine the socioeconomic variations in the quality of play areas in Glasgow and found that despite having a greater level of provision, the quality of such provision was poorer in areas of high social deprivation.

### 3.5.1 *Ground truthing*

As mentioned, one of the main problems with this research was the high proportions of play areas which were unexpectedly missing or removed when they were visited for audit. The information was obtained from the local city council, which installs and maintains all of the play areas chosen for audit, so it was assumed that the data obtained would be full and correct. However, almost 30% of the sites visited were either removed or under substantial renovation, or in some cases, there was no sign of any play area at all. There were also some play areas which on inspection were sports pitches or courts, skate parks or 'kick about' areas. Researchers in Chicago also report that they were unable to gain access to seven play areas, from a total of 45 initially selected, for auditing due similar reasons as described above (Suecoff, Avner, Chou et al., 1999). Whilst ground-truthing is a concept which is evident within the field of cartography and geology, it was not something which was considered when planning this research. Ground-truthing is the term given to the process of checking data sources such as maps and lists of facilities with the physical 'truth' of what is actually on the ground (Paquet, Daniel, Kestens, Leger, & Gauvin, 2008). In essence, part of the play areas audit was a ground-truthing exercise. Not only did this mean that time was spent navigating to and visiting play sites to find no play area present, but it also raises questions of the accuracy of the provision results in the previous chapter and possibly of other similar studies. This was the best available data at the time of the research, however it was not wholly accurate and it may be that due to the renovation and maintenance schedule, the play areas are in a constant state of flux. However, during the qualitative research it became apparent that all play areas are inspected every day and that there is clear guidance on the location and number of play areas given to staff. Since each employee visits the same play areas every day for de-littering and inspection, there is knowledge available in order to ground-truth the data on the

locality of play areas and further discussions with Glasgow City Council may yield additional methods of gaining more accurate data. A handheld Global Positioning System (G.P.S.) device could also be used to correctly report the position of the play areas if the whole of Glasgow was searched on a street by street basis (as in Hillsdon, Panter, Foster, & Jones, 2006); however this would be a timely and costly exercise which may quickly prove to be out of date if the city is in a period of regeneration. Studies often report the existence of facilities conducive to a (un)healthy lifestyle and make comparisons with deprivation, levels of physical activity or other health indicators, however few report that they check the reliability of their data (Paquet, Daniel, Kestens et al., 2008). Any observed relationships, including those which lack statistical significance, may be partly influenced by poor accuracy of data.

### ***3.5.2 Maintenance or Design***

The reasons why play areas in areas of high deprivation are of poorer quality were not addressed in this audit. Certain aspects of poorer quality may be due to aspects of design or aspects of maintenance. Signs such as litter or debris may indicate inadequate maintenance of a play area, whilst some aspects of poor quality are inherent in the design of the play equipment and areas, such as the height of equipment. It might be that there is not an adequate maintenance programme in place to deal with high levels of use as well as vandalism and general wear and tear. In some cases, it was clear that equipment had been vandalised e.g. evidence of equipment being set alight, but the audit did not differentiate between broken equipment due to vandalism and broken equipment due to wear and tear. Variables which might relate to inadequate levels of maintenance are the presence of dog fouling, litter, glass, graffiti, overflowing litterbins, damaged pavements or benches, the state of safety surfacing and chipping or peeling paint, rust, broken or missing parts on equipment. As mentioned these may all be associated with high levels of use and/or misuse. Variables which relate to the design of the play area include, the types and styles of equipment and safety surfacing present, including the height of equipment and the layout of the swings as well as features of design which enable supervision or create snagging, tripping or entrapment hazards. Additionally, the provision of lighting, shade, litterbins, fencing, signage,

pavements, benches, landscaping, art, water fountains, toilets, changing facilities and payphones are also factors which relate to the design of play areas.

By identifying the reasons for misuse, it might be possible to target improvements. For example, if the poor quality is mainly due to lack of maintenance, then it might be that the schedule of maintenance needs to be assessed, including the daily de-littering as well as more extensive types of maintenance, such as re-painting or re-laying safety surfacing. Alternatively, if it is due to the design of the play area, then these aspects need to be assessed in the original installation phase or as part of a renovation programme. It may be possible to re-design play areas to reduce maintenance costs, or to 'design out' crime, for example by using materials that can withstand the Glasgow weather or by placing play areas in sites with good surveillance. These types of proposals were revealed during the qualitative research with maintenance employees and are discussed further in Chapter 5.

### ***3.5.3 Comparisons to other literature***

The results here are similar to two US studies that reported that overall safety levels of play areas were worse in areas with poorer socioeconomic and demographic variables (Cradock, Kawachi, Colditz et al., 2005; Suecoff, Avner, Chou et al., 1999). However, on almost all features, there was a greater proportion of play areas in Glasgow which did not fulfil requirements. Most significantly, whilst 69% of the climbing and sliding equipment surveyed in Boston (Cradock, Kawachi, Colditz et al., 2005) contained an adequate fall zone with the safety surfacing extending at least 6 feet around equipment, this requirement was only met in 15% of play areas in Glasgow. Similarly, underneath the swings, an appropriately sized fall zone was provided in around 30% of play areas in research in Boston and Chicago play areas and 19% in New York City (Cradock, Kawachi, Colditz et al., 2005; Powell, Ambardekar, & Sheehan, 2005; Suecoff, Avner, Chou et al., 1999), compared to only 6% in Glasgow. Powell and colleagues (2005) also found a high proportion of safety surfacing which was not adequately filled or maintained and/or which contained debris and these problems were more frequent in areas of low income which is similar to the results in Glasgow. The levels of equipment with rust and items with broken and/or missing parts that were found in Glasgow were similar to

those found in deprived neighbourhoods in Chicago (Powell, Ambardekar, & Sheehan, 2005). The level of graffiti present in play areas in Glasgow was far higher than that reported by these studies.

Whilst the quality of play areas in other countries may follow a similar pattern with social deprivation, there may be aspects of quality are culturally specific or relate to particular problems in specific areas.

### ***3.5.4 Deprivation amplification or more complex***

Whilst the provision of play facilities in Glasgow does not support the deprivation amplification hypothesis, the poorer quality of provision may counteract the benefit of higher level of provision. In deprived areas where there may be smaller garden sizes and a lower disposable income to pay for children to attend sports clubs or facilities, there may be a greater need for freely accessible, good quality play provision. Additionally, scores indicating poorer quality may actually suggest greater use rather than neglect or vandalism. For example, high levels of litter and signs of wear and tear such as chipping paint may be caused by a high level of use and there may not be a sufficient maintenance program in place to keep up with this. Thus, counter intuitively, it is possible that the play areas which were in poor repair (mostly in areas of high social deprivation) were actually used more than those in good repair (mostly in areas of low social deprivation). By whichever means the play areas found themselves in disrepair: by vandalism; lack of maintenance; poor design; high levels of use; or a combination of these, the issue still remains that the play areas with high social deprivation were of worse quality.

The full effect of this poorer quality play provision is unknown. Whilst one might expect that poor quality may impact upon the use of play areas, there will most likely be other factors which also play a role. For example, it is not clear if the poorer quality of play areas will create barriers for use in areas where there are few opportunities for play as it is possible that a play area will continue to be used in spite of its poor state of repair if there are no other local alternatives. Giles-Corti and Donovan (2002a, pg.1795) referred to a “decay of distance” factor when discussing use of facilities for physical activity and they suggested that for sports facilities the barrier of distance would decay in comparison to



non-formal facilities for physical activity. Similarly, the barrier of distance may decay if the quality of the play area is poor, and so parents may be willing to travel to a play area further away if it is more suitable. On interviewing parents at play areas in Ontario, Canada, Tucker and colleagues reported that around half of parents and children were not visiting the play area closest to their home or starting destination, but chose the play area with the best facilities, whereas the other half of play area users stated that, *“location really comes first”* (Tucker, Gilliland, & Irwin, 2007, pg. 200). This decay of distance factor will depend on how physically and financially able, parents and children are to travel to a play area, as well as individual and psychological factors. Since it is the most economically deprived families who might not be able to afford to travel to their preferred play area, it is these families who will have the most limited play opportunities, as the quality of their local play areas are more likely to be poor.

Furthermore, it may be that certain factors of safety and aesthetics have a greater influence on use than others. For example, it may be that the presence of youths fighting or drinking alcohol may be a bigger deterrent than graffiti or litter. It is feasible that these barriers may be specific to the local neighbourhood as well as to the age of the child. The benefits and barriers to accessing play areas were explored in qualitative research with adults and children and this is discussed in Chapters 4 and 5, respectively. However, further research is required to gain a deeper understanding of the types of places that parents and children choose for outdoor play. Additionally, measuring the use of play areas as well as assessing the quality of play areas may help to identify which factors are important, e.g. level of provision, incivilities, the type of equipment etc. By measuring use and assessing what types of activities children are undertaking in the play area, and whether or not they are physically active, it might also be possible to quantify, to some extent, the benefit to health. This could be achieved by using SOPLAY tool developed by McKenzie and colleagues (McKenzie, Marshall, Sallis, & Conway, 2000).

### **3.5.5 Reflections on Methods**

One of the aims of this piece of research was to make recommendations for changes to the audit tool in order that it could be used in Glasgow by policy

makers. By making these alterations, it is hoped that the checklist would be more applicable to the Glasgow context and more user friendly.

### **3.5.5.1 Checklist Itself**

Some of the questions in the checklist were ambiguous and, on reflection, should have been altered in the pilot phase. A balance between modifying the checklist to suit Glasgow and maintaining the fundamental questions of the checklist needed to be managed in order to maintain its validity and be able to make comparison with other cities that have used the same checklist. Some of the more ambiguous questions are now discussed. If any further research were to be conducted using this checklist then these issues would need to be addressed and solutions piloted.

#### ***Accessibility questions***

It is not clear how helpful it is to note that a play area may be partially accessible to persons with disabilities nor how far outwith the play area the conditions should apply. For example, if a play area is in a public park then it is not clear where the boundaries for the question lie: they could be at the immediate boundary around the play equipment, at the surrounding park pathway or at the park entrance. Since the park land is predominately grass with uneven surfaces, it would not be suitable for persons in wheelchairs. Furthermore, the introduction of dog grids at the gates to play areas makes it very difficult not only for adults with pushchairs/strollers and prams, but also for those in wheelchairs to enter. Additionally, whilst efforts may be made to make paths and gates accessible to persons with disabilities, the area around the play equipment may not be large enough to manoeuvre a wheelchair and the equipment itself may not be accessible to persons with disabilities.

#### ***Unclear Scoring***

The original four-point scoring system for dog faeces, litter and glass was a little unclear. For instance it is not clear by what degree the options of 'almost none', 'very light', 'moderate' and 'heavy' differ. Without a clear definition,

the question remains quite subjective. Additionally, it is not clear why the lowest option is 'almost none' and not 'none at all'. Since the scale was not likert in nature, it meant that the answers could not be equally weighted when scoring. Although the question relating to graffiti contained percentages for the amount of coverage as possible answers, the distribution of these was not equal and so it was unclear as to how these should be scored and weighted.

Additionally the top answer was 20% or more of the area contains graffiti, which may be too low to show variation in Glasgow play areas. New scoring methods would need to be piloted and validated in Glasgow, before reapplying the audit tool.

Despite the seemingly objective scoring methods, fieldworkers commented that they did compare play areas in order to make a judgement on where to mark the level of litter or graffiti, etc. There was even one occasion where a fieldworker scored an item as in between one of the four options. Other feedback from fieldworkers suggested that the binary options left little scope for comparison, since they would have to mark a play area as having rust even if it only contained a small patch, which essentially gave the play area the same score as one in which whole pieces of equipment were rusty. They commented that they *"felt bad for marking a play area down"*. Whilst binary options may improve inter-rater error, they may not be sensitive enough in this simple form to show variation. Suitable and more sensitive scoring would need to be created and piloted in order to show variation.

### **3.5.5.2 Suitability of Tool to Glasgow Play Areas**

Not only were there problems with play areas not being present or being a different type of facility than expected at sites, but there were also a number of occasions where the type of equipment present at the sites was not what was expected when planning the audit. For instance there were a number of play areas that only contained concrete structures such as animals, boats, bollards and small walls, but no other equipment. These were not aesthetically pleasing and the play value of such equipment was also unclear. When auditing these sites, there were no suitable questions relating specifically to the quality and safety of these types of structures, since it was not possible to categorise them as a specific type of equipment. (See Figure 3.2) On a similar note, more

modern types of equipment were also difficult to categorise and assess. (See Figures 3.3 and 3.4) It was helpful to have parents working as fieldworkers at this point as they had a greater awareness of the types of play that some of the more modern equipment was designed for. In general, it was possible to make an agreement informally on a 'name' for the new equipment and decide on a category that it would fit for auditing, based on whether the equipment was mainly for climbing, swinging, bouncing or if it rotated like a roundabout. This had to be done sporadically throughout the fieldwork which was not ideal since sometimes some types of equipment were missed during this process and had to be re-categorised at the data cleaning stage. A more substantial pilot phase may have helped to minimise these difficulties, but would not have eradicated them since essentially the audit tool was not designed to assess such a wide range of equipment. The fieldwork would, however have benefited from a more formal approach of assigning and documenting these types of classifications as this could have been referred to whilst in the field and when cleaning and coding the data.

Additionally, in order to use the tool in a Glasgow context, some questions could be removed. These include questions relating to sand-pits, toilets, changing facilities, pay phones and drinking fountains as there were so few of these in the play areas they were not comparable across quintiles. Additionally, although the question relating to shade did show variation across quintiles, it is not something which is particularly beneficial in the Glasgow climate and could easily mean dark and gloomy rather than shelter from sunlight. It is also possible that in Glasgow shade is a proxy for the presence of large trees in the play area. The scoring system of the checklist would need to be adapted and piloted extensively. The photographs could be used to facilitate any weighting or validation of scores by using them in 'blind rating' exercises with members of the public.

**Figure 3-2 - Concrete Play Area****Figure 3-3 – Modern Play Equipment**



**Figure 3-4 - Modern Play Equipment**

### 3.6 Conclusion

Although there may be greater provision in areas of high deprivation, the quality of these play areas may be poorer. This may impact upon use of such play areas, but further research is needed to establish what features create barriers to use and which attributes parents and children in Glasgow and in other areas deem most important. It is important that play areas remain open, well maintained and attractive to both parents and children and that efforts are made to promote the use of such facilities for physical activity and improving well-being. Finally, it would be possible to adapt this audit tool in order to make it more user-friendly and suitable for use within a Glasgow context, which would mean that it could be used as a potential tool by policy makers to aid in the evaluation of renovations to play areas or to prioritise future funding.

### **3.7 The contribution of this research to the academic literature**

This is the first piece of research to my knowledge that attempts to objectively examine the quality of play areas in the UK. Indeed there are very few studies worldwide that have objectively assessed the quality of play areas (Cradock, Kawachi, Colditz et al., 2005; Powell, Ambardekar, & Sheehan, 2005; Suecoff, Avner, Chou, & Crain, 1999) or of other resources for physical activity (Crawford, Timperio, Giles-Corti, Ball, Hume, Roberts, Andrianopoulos, & Salmon, 2008; Miles, 2008; Molnar, Gortmaker, Bull, & Baka, 2004). This research reinforces what others have found in relation to the quality of play areas being poorer in areas of high social deprivation and suggests that the quality of facilities as well as access to them may be socially patterned. In addition, this research suggests that the quality audit checklist could be developed as a tool for policy makers in order to assess current provision or evaluate regeneration. Finally, the unintended ground truthing exercise that emerged from this research also makes an original contribution to the literature. Whilst some researchers may ground truth their data, it is not something which is reported widely in the academic literature (Paquet, Daniel, Kestens, Leger, & Gauvin, 2008; Suecoff, Avner, Chou et al, 1999). It is important to note the stark differences between the data received from the city council and the reality on the ground and to question the reliability of such data in future research.

## Chapter 4 Children's Perceptions of Outdoor Play Areas

This penultimate results chapter concerns the exploratory research which was conducted in the autumn of 2006 to investigate children's views of play provision in Glasgow and to explore whether these views varied by area deprivation. It includes a review of the literature about children's perceptions of spaces for play and any links with their use and/or physical activity levels; a description of the qualitative methods employed to determine children's perceptions; a summary of the results from focus groups and 'draw-and-write' activities; and a discussion of their implications and limitations.

### 4.1 Introduction

A recent review from the National Institute for Health and Clinical Excellence (NICE) discusses the dearth of research investigating interventions of children's active play (Cavill & Foster, 2008). Similarly, the majority of the literature in another of NICE's systematic review documents entitled "*the views of children on the barriers and facilitators to participation in physical activity: a review of qualitative studies*," focuses mainly on the barriers and facilitators of more structured forms of physical activity and sport rather than active play (Foster, 2007). In this latter review, the areas of research included: girls aged 11-18 years; children under eight years; active travel; and families and communities. Of the five studies relating to children under eight years: only one was a peer reviewed journal article which investigated children's views about playing in a school playground; one was a report from (the former) Health Education Authority; one a report by a marketing company; and two articles investigated adults' and children's views about children's participation in sports. With regards to the research reviewed on families and communities: only two articles concerned free play and these were both Australian (Hume, Salmon, & Ball, 2005; Veitch, Bagley, Ball, & Salmon, 2006) and are discussed later. This NICE report concluded that there were fewer barriers for children younger than eight years than for the other age groups of children; those that they did report were all related to sports rather than active play. Whilst some of these barriers for structured physical activity and sports may be applicable to play, there is no



available evidence to confirm this. However, this review also concluded that traffic, lack of independent mobility and access to play spaces as well as local adults disliking children playing in the street were all barriers to active travel amongst children. Some of the studies that NICE relate to active travel also mention play when discussing barriers (e.g. Barnardo's, 2004) and so it is feasible that these barriers may could be similar to those for outdoor play.

#### ***4.1.1 Children's Perceptions of Play Spaces and Physical Activity***

There is limited research which investigates children's opinions about play and their local environment, and what is available mainly comes from grey literature. It suggests that children enjoy playing in a variety of spaces and benefits include socialising, having fun and keeping healthy. These benefits have also been shown to be important for physical activity amongst children (Jago, Brockman, Fox, Cartwright, Page, & Thompson, 2009; McKee, Mutrie, Crawford, & Green, 2007). Children's perceived barriers to play are mainly related to safety concerns including fear from traffic, strangers and bullying (Children's Play Council, 2002; Thomas & Thompson, 2004).

A report conducted by the Children's Play Council (now Play England) at the National Children's Bureau found that children enjoy playing in a variety of different spaces including in the street and at play areas. However the distance, poor quality and maintenance of play facilities were a barrier to their use for primary aged children (Children's Play Council, 2002).

Qualitative research with children from England concerning break time (recess, playtime or lunch time) in schools showed that primary aged children enjoyed breaks because they gave them the opportunity to get out of the classroom, have respite from school work, have fun, relax and play games (Blatchford, 1998). Research involving Pakistani children in Sheffield showed that children enjoyed visiting parks and playgrounds and that in general children preferred more active than passive pursuits. The most preferred activities were playing on swings and slides, watching sports events and listening to birds (Woolley & Ul Amin, 1995). Young people may also appreciate having things to do, aesthetics and the presence of greenery:

*“What I dislike about my school grounds is that they are big, wide and ugly. I would like nice trees, big open green spaces and nice clean fresh air, with lots of things to do. I would also like to do quite a lot of lessons outdoors.” Girl, 15” (Adams, 1990, Pg 89)*

However, children face barriers to playing outdoors. Safety concerns are paramount and one of the most salient of these for children is that of bullying (Matthews, Limb, & Percy-Smith, 1998; Thomas & Thompson, 2004; Woolley & Ul Amin, 1995). Other issues of safety that have been reported in qualitative research with children for the Green Alliance and DEMOS include danger from traffic or trains, stranger-danger and crime including being kidnapped or killed, becoming lost and terrorism (in London) (Thomas & Thompson, 2004). These authors also discuss how children's fears may be influenced by the media and their parents' concerns. These issues may impact upon children's willingness to play outside. Links between children's perceptions of their environment and levels of physical activity are discussed in the following section.

There is little research which considers children's perceptions of their neighbourhoods and their effects on physical activity, as most rely on parent's perceptions (discussed in Chapter 5) or objective measures (discussed in Chapter 3). The differences between objective and subjective measures of the environment, and a justification for using both, are discussed in Chapter 3.

The perceived quality may impact upon whether or not places are used. Adolescents (aged 10-16 years) from low income areas have reported that poor quality of facilities are barriers to using these places to be physically active (Romero, 2005). Crime and safety have an important relationship with physical activity, but results may depend on the measurements used. Whilst increased crime rates were significantly and inversely related to the physical activity levels of Mexican American adolescent girls, their perception of living in an unsafe neighbourhood was, unintuitively, positively related to increased physical activity (Gomez, Johnson, Selva et al., 2004). Amongst adolescent girls in California, their perception of their neighbourhood being well lit and safe to walk in was associated with increased physical activity and their perception that crime and traffic were not a problem where they lived were associated with a lower BMI. (Evenson, Scott, Cohen, & Voorhees, 2007). Moreover, whilst

children reported that lack of adult supervision was a barrier to using recreation facilities (Romero, 2005), children who reported more neighbourhood hazards concurrently reported being more physically active than their peers in safer neighbourhoods (Romero et al., 2001).

Physical activity was not associated with perceptions of their neighbourhood in a study which involved ten year old children in Australia who drew maps and took photographs of things that were important to them within their neighbourhoods (Hume, Salmon & Ball, 2004). The authors suggest that children and young people may be protected by their parents and so parents' fear of crime (which may be linked to the objective data on crime levels) may mean that the children are restricted in their outdoor play and so are less aware of the neighbourhood hazards.

Children's or parents' concerns about safety in their neighbourhood may reduce independent mobility (Mackett, Brown, Gong, Kitazawa, & Paskins, 2007) which may in turn mean that children may be unable to visit local play facilities and/or are less active. Even after controlling for parental perceptions of neighbourhood safety, children who reported being allowed by parents to walk on their own in their neighbourhood were more than twice as likely to spend at least half an hour playing outdoors compared to children whose parents did not allow them this freedom (Wen, Kandula, & Lauderdale, 2007).

On balance, it may simply be that parents of young children have the final say about where children can and cannot play. Whilst children's perceptions of safety do not always correlate with their levels of physical activity, their views are still highly important if we want to improve their play experiences and ultimately increase their physical activity.

## **4.2 Aims**

The aim of this research was to further our understanding of children's views of local play provision and also to explore whether these views differed by area deprivation.

## 4.3 Methods

Two primary schools, one in an area of high social deprivation and one in an area of low social deprivation, within Glasgow were recruited to take part in this research. From these schools, 33 children attending Primary six (P6) (aged 9-11 years) and two of their parents were recruited to investigate their perceptions of local play provision. Research was conducted with two mothers as well as children, and this is discussed in the latter half of Chapter 5.

Sixty-two 'draw-and-write' worksheets were completed by 33 children (aged 9-11 years) in which they drew and wrote about places where they enjoy and do not enjoy playing. Four focus groups were also conducted with a total of 24 children exploring their views on local provision and the benefits and barriers to visiting play areas.

### 4.3.1 Research with children

It was important to assess the views of children since they are the target users for play provision and whilst their behaviour may be somewhat controlled by their parents, children's own experiences, perceptions and preferences will also contribute to where and how often they play. Establishing their views and preferences for play spaces may help to design play areas which children find stimulating and enjoy

While in the past children's views may have been ignored, Christensen and James discuss a paradigm shift with regards to researching the lives of children:

*"This shift has involved repositioning children as the subjects, rather than the objects of research"* (Christenson & James, 2000, Pg 5).

Children's views are increasingly recognised as being important in their own right (Roberts, 2000) and more 'child-centred' approaches have been used to involve children in research, such as the draw-and-write technique used in this study.

Researchers who study children's views must be aware of the level of children's cognitive development in order that children fully understand what the research

is about and are able to give informed consent. It is suggested that children should receive their own information sheets and are given the opportunity to ask questions; the same courtesy that is afforded to adults (Alderson, 1995). It is also vital that questions are phrased in ways suited to their abilities, without being patronising. The voluntary nature of the research was stressed to children since the school setting may make it harder for them to decline participation. Children's informed consent was reconfirmed prior to the beginning of the focus groups to ensure that they were aware that they would be recorded and that anonymised quotations may be used in the write up of the project. Children may view adults as authority figures an imbalance in power may be created. In order to reduce this and distance myself from the role of a teacher, I tried to be friendly and relaxed, used my first name and answered their questions about my background as well as the research.

### ***4.3.2 Qualitative Research***

Qualitative research aims to develop a deeper understanding of how the social world is constructed by interpreting the views and experiences of participants (Mason, 2002). It embraces methods that are flexible and sensitive to the social context of the data production and aims to produce rich, complex and detailed data in order to produce deep, contextual understandings of the particular phenomena. This is suited to the exploratory nature of this research and is appropriate for gaining an understanding of children's views about outdoor play provision.

#### **4.3.2.1 Draw-and-write**

'Draw-and-write' is a tool that was developed for use in school-based health promotion with children (HEBS, 1998; Williams, Wetton, & Moon, 1989), but it is increasingly used in a research setting, particularly to understand children's experiences of ill health (Horstman, Aldiss, Richardson, & Gibson, 2008). It involves asking children to draw, label and write about aspects of health and is based on pedagogical research which suggested children could convey emotions through drawing pictures, whilst they lacked the vocabulary to articulate them through writing or speaking (Wetton & McWhirter, 1998; Williams, Wetton, & Moon, 1989).

Although some have argued that in using this technique, the merits of being agreeable to children are taken at the expense of methodological rigor; “*it is an essentially qualitative method which is being deployed in order to provide quantifiable information*” (Backett-Milburn & McKie, 1999, Pg. 393), in this research the draw-and-write task was combined with qualitative focus groups. It was not only used to generate data, but also to help children to begin to think about play and their local provision. Another criticism of this technique is that children may be eager to please researchers or teachers and produce pictures which they think will be deemed acceptable or those which are representations of socially desirable discourses (Gabhainn & Kelleher, 2002). However, this is a criticism which could apply to qualitative research in general, albeit being accentuated in children due to the inequity of power between researcher and participant (Christenson & James, 2000). In acknowledging this, attempts were made to reduce these impacts, such as emphasising that there were no wrong or right answers and that I was interested in their own opinions and experiences.

Draw-and-write helps to create an “*enabling climate*” for children to discuss their opinions, with the written element facilitating the collection of verbatim data without having to rely on an adults’ interpretation of a picture (Horstman, Aldiss, Richardson et al., 2008, Pg. 1010). Additionally, whilst drawing or writing alone can be used to explore children’s views on health, it is argued that the combination of these helps to explain context and links between different aspects of a picture (Pridmore & Lansdown, 1997). Research also suggests that using multiple methods with children does not simply replicate data, but adds depth and clarity (Darbyshire, Macdougall, & Schiller, 2005).

In the research presented in this chapter, it was important that tasks were chosen which were suitable for the cognitive abilities of the children involved and that they were engaging. The level of teacher assistance could be varied to suit the abilities of the children, without compromising the integrity of the data collection. For example, help could easily be given with interpreting the instructions, writing or spelling, without specifically suggesting what to draw or write. It was also considered that these types of activities would be something that the children would be familiar with, competent at and would hopefully enjoy.

The draw-and-write activity involved two worksheets; one was titled *“Somewhere I enjoy playing”* and the other, *“Somewhere I do not enjoy playing.”* The work sheets were blank sheets of A4 paper with these titles printed at the top and a space for the child to write their name, age, sex and school details. Children were asked to draw somewhere fitting these descriptions, to label their pictures and to write the reasons why they liked or disliked the space. They were given the opportunity to colour in their pictures only after they had completed the labelling and writing of both worksheets. The teacher instructions (Appendix G) for this task reminded teachers not to prompt children or indicate approval of their pictures, except to praise effort; and to prevent children from discussing their pictures with their classmates.

A small pilot exercise was conducted with a convenience sample of four P6 girls whilst school recruitment was underway in order to practice and assess the usability of the draw-and-write worksheets. From this, the title and instructions were adjusted from their previously hypothetical instruction of drawing *“somewhere you would (not) like to play.”* Some of children completing the work sheets with the more hypothetical title drew more imaginative pictures, including such things as giant spiders and a magic bed. The slight adjustment to the phrasing meant that children’s own experiences were sought.

The draw-and-write work sheets were completed prior to the focus group discussions since the activity would help to initiate their thoughts about play and areas for play.

#### **4.3.2.2 Focus Groups**

Focus groups were chosen as one of the methods for gaining children’s opinions on play and their local provision since they take a more relaxed approach and may be less intimidating than an interview. It is also argued that the greater power of an adult researcher compared to children is reduced in a focus group setting compared with an interview since children are often responding to their peers’ comments and are not only answering an adults’ questions (Heary & Hennessy, 2002). Focus groups thus provided an appropriate means to discuss children’s barriers to play and their experiences of local provision further. It also meant that any children who did not enjoy, or were not proficient at the draw-and-write activity, would have another opportunity to give their views.

It is recommended that focus groups with children are comprised of four to six participants since this smaller group encourages all children to participate (Lewis, 1992). Additionally, having relatively few participants may make it easier to control the pace of discussion and keep children engaged. For these reasons, I aimed to form focus groups that comprised of around five participants; this was possible in the school in an area of high deprivation, but not with children attending school in an area of low deprivation. In this latter group, there was only time to complete one group discussion following the draw-and-write activity and I wanted to include as many of the 19 children as possible; a focus group with ten participants was therefore conducted. This decision was not only based on a desire to collect as much data as possible, but also because I felt that it was unfair to limit the group discussion to so few children, when they were all very keen to take part.

A brief topic guide was used throughout the focus groups, and photographs were shown in order to maintain the children's attention and help to concentrate the discussions around play areas. The topic guide covered questions about where children played, their local provision, and aspects of good and bad play areas. I used photographs that had been taken during the quality audit of play provision (discussed in Chapter 3), which showed examples of play areas in different areas of Glasgow and illustrated a range of quality and a mixture of styles of equipment, to stimulate discussion. These can be seen in Appendix H. I asked children what they thought of these examples of play areas and whether or not they would enjoy playing there. Three focus groups were conducted in an area of high deprivation with four to five children and one larger focus group was completed with ten pupils in an area of low deprivation.

### ***4.3.3 Using Schools to recruit participants***

Schools were chosen as a means to recruit children since they provide access to children and parents across the city, in different areas of deprivation. This was preferable to visiting play areas and recruiting children from them, since the views of those who do not use play areas, as well as those who do, were sought.

Children in P6 (mean age = 9.9 years) were selected for recruitment since it was considered that they would have experience of visiting play areas and may be



reaching an age where they have more independence in choosing where and how they play. As such they would be capable of feeding back their opinions and experiences of outdoor play areas.

#### ***4.3.4 Legal and Ethical Permissions***

A number of legal and ethical clearances were required before the recruitment of participants could begin. Firstly, since I would be working alone with children during the research, a legal requirement was to apply for an “Enhanced Disclosure” from Disclosure Scotland. Disclosure Scotland is a government organisation which carries out vetting of criminal histories for anyone who will be working with children or vulnerable adults. Once this was obtained, an ethics application was submitted to the Ethics Committee of the Faculty of Law, Business and Social Sciences at Glasgow University, which outlined the proposed methods and implications for participants (Appendix A).

Before contacting school gatekeepers and recruiting schools, agreement from the Local Education Authority (LEA) at Glasgow City Council (GCC) was sought. An application was submitted to the city council which included a description of the research proposal and highlighted any impacts on teachers or schools (Appendix B). The LEA agreed on the condition that permission from individual head teachers and parents or guardians would be obtained prior to conducting any research with children. For ease, the term ‘parents’ will be used to denote parents or guardians in the rest of this chapter.

Since the pupils involved in the research were under 16 years old, it was necessary to gain parental consent and well as individual consent from the child. The LEA required that the research sought ‘opt-in’ parental consent, where-by each parent would be required to complete a form to indicate their agreement, rather than opt-out consent, whereby forms would only have to be returned if they did not agree to their child’s participation.

### **4.3.5 Recruiting Schools**

#### ***Choosing Schools***

The names of the head teachers and full addresses for all GCC primary schools were obtained from their website, and from these, the information for all English-speaking<sup>3</sup>, non-denominational schools was selected. Using the postcodes of the school addresses and look up tables provided by the Scottish Executive (2004c) the data zones of the schools were determined, and from these their Scottish Index of Multiple Deprivation (SIMD) Score was attained. Quintiles of SIMD for Glasgow (SIMDgla) were calculated as has been described previously (Chapters 2 and 3). In line with the sampling of play areas in Chapter 3, primary schools within data zones which were in areas with deprivation at extremes and in the middle quintiles of SIMDgla were initially selected. There were 25 possible schools in areas of high deprivation, 24 in areas of medium deprivation and 17 in areas of low deprivation.

Recruitment of schools began prior to the summer holidays, in the spring of 2006, with the intention that research would take place in September 2006. Initially two schools in each quintile of high, medium and low SIMDgla were randomly selected to target for recruitment. In my naivety I was concerned that if more schools were approached, there was a possibility that they could all agree to participate but that I would not be able to accommodate all of them. However, I quickly realised that this would not be a problem when I struggled to find willing head teachers, and so randomly selected more schools as the recruitment process continued.

#### ***Contacting Schools***

Prior to contacting schools formally, each school was telephoned to confirm the head teacher's name and to ask how best to send details about the study, e.g. by post, fax or email. I also asked what the best days or time would be to telephone in order to speak to the head teacher. Invariably, the office staff said that it would be difficult to suggest a time since their schedules were busy and they often had impromptu meetings or duties to fulfil.

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<sup>3</sup> One school in Glasgow was Gaelic speaking

Recruitment packs were sent to head teachers asking for their school's participation and these contained a covering letter describing the research project and asking for their participation (Appendix I); a summary information sheet detailing what participation in the research would involve for the school and pupils (Appendix J); copies of information sheets for parents (Appendix K) and pupils (Appendix L) and examples of the research materials (Appendix G). The sheet detailing the research involvement contained practical information, such as the length of time and amount of staff involvement that would be required so that head teachers could quickly assess whether it would be possible to accommodate the project. Copies of approval letters from the LEA and Disclosure Scotland were also enclosed along with examples of the recruitment material for pupils and parents. This resulted in a bulky information pack which, in hindsight, may have put off some head teachers.

As had been indicated on the letters to head teachers, one week after sending recruitment packs, I telephoned them to ascertain whether or not they were willing to be involved. Unfortunately, it proved very difficult to speak to many head teachers, despite being flexible in my approach and offering a number of methods to liaise with them including: offering to call or visit the school at their preferred time; to open communications by email; or for them to call me at their convenience. Even with multiple, sometimes daily, calls to schools, at varying times of the day, I was not able to speak with all head teachers. From the initial six schools selected for recruitment: three declined; two head teachers were unreachable; and one head teacher of a school in an area of high deprivation agreed to participate.

A further 16 letters were sent by post, email or fax to schools in areas of low and medium deprivation and a similar struggle to speak to busy head teachers occurred. One teacher noted that they receive hundreds of research requests every year and cannot possibly facilitate all of them. Other reasons for not participating included: the school being under inspection; not judging that the research warranted the time away from class; and that the school already

fulfilled its obligations for physical activity through their Active Schools co-ordinator<sup>4</sup>.

As the recruitment struggle continued, the decision was made to stop pursuing schools within the middle quintile of deprivation and to focus on recruiting schools within areas of extremes of social deprivation. An acting head teacher of a school within an area of low deprivation area initially agreed to participate, but on return of the actual head teacher after the summer holidays, her decision to participate was overruled. In October 2006, I was successful in recruiting another school in an area of low deprivation and ceased further recruitment attempts.

#### ***4.3.6 Recruiting children and gaining consent***

The head teachers from a school within an area of high deprivation and a school within an area of low deprivation in Glasgow agreed to participate. Meetings were held at each school with the head teacher to discuss the study further and arrange practicalities of conducting the research with children. Around two weeks prior to the arranged research days, I spoke to the P6 classes about the study and distributed recruitment packs for them to take home. These packs contained: a covering letter (Appendix M); information about the study for parents (Appendix K) and for children (Appendix L); as well as a consent sheet for parents (Appendix N) and one for children (Appendix O). Both parental and child consent was required for the children to be involved in the research. Reminder letters and extra recruitment packs were re-distributed one week prior to the research to those who had not returned their forms. In total, packs were sent to 50 children attending the school in an area of low deprivation and to 30 children in an area of high deprivation. Of these, 19 children participated from the school in an area of low deprivation and 14 from the school in an area of high deprivation.

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<sup>4</sup> Active Schools co-ordinators are funded by Sport Scotland to provide pupils with sufficient opportunities to be physically active and also to promote physical activity and a healthy lifestyle in a school-based setting (SportScotland, 2005).

### **4.3.7 Fieldwork**

#### ***School in an area of high deprivation***

Research was conducted with 14 children attending school in an area of high deprivation in November 2006. The draw-and-write activity in this school was conducted as a class based activity and directed by the class teacher and teaching assistants.

Unfortunately, despite being given written and oral instructions on how the activity should be led, as well as the opportunity to ask any questions regarding the method, the class teacher started the task by asking children to suggest the places that they were going to draw. These suggestions were written onto the board as the children read them out and may have prompted children to draw certain places. He also allowed them to begin to colour in their pictures prior to finishing the outline and writing of both worksheets, which meant that not all of the children's worksheets were fully complete. The 24 worksheets from the children from whom I had parental consent were collected at the end of the day and the rest remained with the teacher to return to the children.

This activity was followed by three focus group discussions, each comprised of four to five children. The teacher selected the composition of the groups from those children with consent and he generally grouped together those who sat at the same table in the classroom. I led all of the focus group discussions with children in a small meeting room adjacent to their class room and these were recorded onto cassette tape and lasted approximately 30 minutes.

#### ***School in an area of low deprivation***

Although it was arranged that a teacher would lead or assist with the draw-and-write task, this was not possible at the school in an area of low deprivation. Instead I led the task in a spare classroom with 19 children and talked them through the both work sheets. All of the children were keen to be involved in the group discussion, but there was not enough time to complete multiple focus groups and so at the end of the draw-and-write activity, I gave the children the chance to informally discuss their pictures with their peers in small groups for around five minutes.

To fairly choose who would participate in the focus group children were asked to write their name on a small piece of paper and the class 'drew names from a hat'. The focus group was conducted in a similar way to the previous groups, except it was necessary, given the greater number of children, that I exerted more influence as the facilitator to keep the direction of the discussion on track and to reduce children talking at once. The discussion was recorded onto cassette tape and lasted around 40 minutes.

### **4.3.8 Analysis**

#### **4.3.8.1 Draw-and-write**

All of the draw-and-write worksheets were anonymised by removing the children's name and school details and assigning an ID number relating to the gender and age of the child and area deprivation.

A table was then created recording the places that each child had identified as somewhere they did and did not enjoy playing with the aspects of each picture, any labels and writing noted verbatim alongside. Whether or not the child had drawn or mentioned being physically active and whether or not the place represented somewhere which might facilitate physical activity was also coded. The places and reasons for (non)enjoyment were then summarised into general themes.

Whilst this method may fall into the trap that Backett-Milburn and McKie discuss as using a qualitative method to produce quantifiable data (1999), there are no guidelines on how to analyse this method further. By using the children's writing verbatim and using basic thematic analysis, the qualitative aspect of the data has been maintained.

#### **4.3.8.2 Focus groups**

Tapes were transcribed professionally by a secretarial company familiar with dealing with qualitative research. Some information was lost since some children's voices were not picked up by the recording equipment and at times children talked at once. This over talk meant that some parts were not audible or transcribed, even on subsequent listening to the tapes. On the return of

these transcripts, all pupils' names and identifiable information were removed. The transcripts were analysed thematically by hand since there were relatively few themes and the groups had been quite relatively structured and remained on topic.

## 4.4 Results and Reflections

In the school in an area of high deprivation, 14 draw-and-write work sheets were completed by P6 pupils (mean age=9.6 years) describing where they enjoy playing and ten were completed to show where they do not enjoy playing. Three focus groups, each with four or five boys and girls, were also conducted. In the school in an area of low deprivation, 19 worksheets were completed by children (mean age=10.1 years) describing where they enjoy playing and a further 19 to show where they do not enjoy playing. One focus group with ten pupils was also conducted here. The results and reflections from the draw and write activity are shown first, followed by results and reflections from the focus groups. The differences between the results from pupils attending school in an area of high or low social deprivation are also explored.

### 4.4.1 Draw-and-Write Results

In total 62 draw-and-write worksheets were completed and the break down of these can be seen in Table 4.1. Fewer worksheets were completed by pupils in the school in an area of high deprivation, which represented the smaller class size.

**Table 4-1 – Number and Details of Participants Recruited for the Draw-and-Write Activity**

Research Activity	Draw-and-Write: Somewhere I <b>enjoy</b> playing		Draw-and-Write: Somewhere I <b>do not</b> <b>enjoy</b> playing		<b>Total</b>
Participant Details	Number of <b>Boys</b>	Number of <b>Girls</b>	Number of <b>Boys</b>	Number of <b>Girls</b>	
School in an area of <b>high</b> deprivation	4	10	3	7	<b>24</b>
School in an area of <b>low</b> deprivation	9	10	9	10	<b>38</b>
<b>Total</b>	<b>13</b>	<b>20</b>	<b>12</b>	<b>17</b>	<b>62</b>

In the school in an area of high deprivation, four boys and ten girls completed a work sheet to show where they enjoyed playing and of these three boys and seven girls completed the second work sheet detailing where they did not enjoy playing. In the school in an area of low deprivation, nine boys and ten girls in P6 all detailed where they enjoy and do not enjoy playing.

#### 4.4.1.1 “Somewhere I enjoy playing”

The specific places that children drew under the heading “*somewhere I enjoy playing*” are shown in Table 4.2 and are summarised and broken down by sex and deprivation in Table 4.3. An example of two completed draw-and-write work sheets is also shown in Figure 4.1. Children in both areas enjoyed playing at the beach, at sports facilities, in their gardens and in a play area. Children from the school in an area of low deprivation drew more informal spaces for play such as fields or small areas of green space than those children from an area of high deprivation. Only boys drew football pitches and only girls drew swimming pools as somewhere they enjoyed playing.

**Table 4-2 Places that children drew as “somewhere I enjoy playing”**

<b>“Somewhere I enjoy playing”</b>	
<b>School in an area of High Deprivation</b>	<b>School in an area of Low Deprivation</b>
<ul style="list-style-type: none"> <li>• The beach</li> <li>• A football pitch</li> <li>• “The Beacon” – a local, staffed play centre with both indoor and outdoor activities</li> <li>• Their garden or back-court<sup>5</sup></li> <li>• A swimming pool</li> <li>• A play area</li> </ul>	<ul style="list-style-type: none"> <li>• The seaside</li> <li>• A football pitch</li> <li>• “Mugdock Country Park” – a large country park just outside Glasgow</li> <li>• Their garden or relative’s garden</li> <li>• A swimming pool</li> <li>• A play area</li> <li>• The school gym hall</li> <li>• Their bedroom</li> <li>• A field at their relative’s farm</li> <li>• Grass space between houses</li> <li>• The street or “round the corner”</li> <li>• A big tree</li> </ul>

<sup>5</sup> A back-court is a back yard shared between flats (usually tenements) traditionally used for drying clothes. It is often paved rather than grassy.

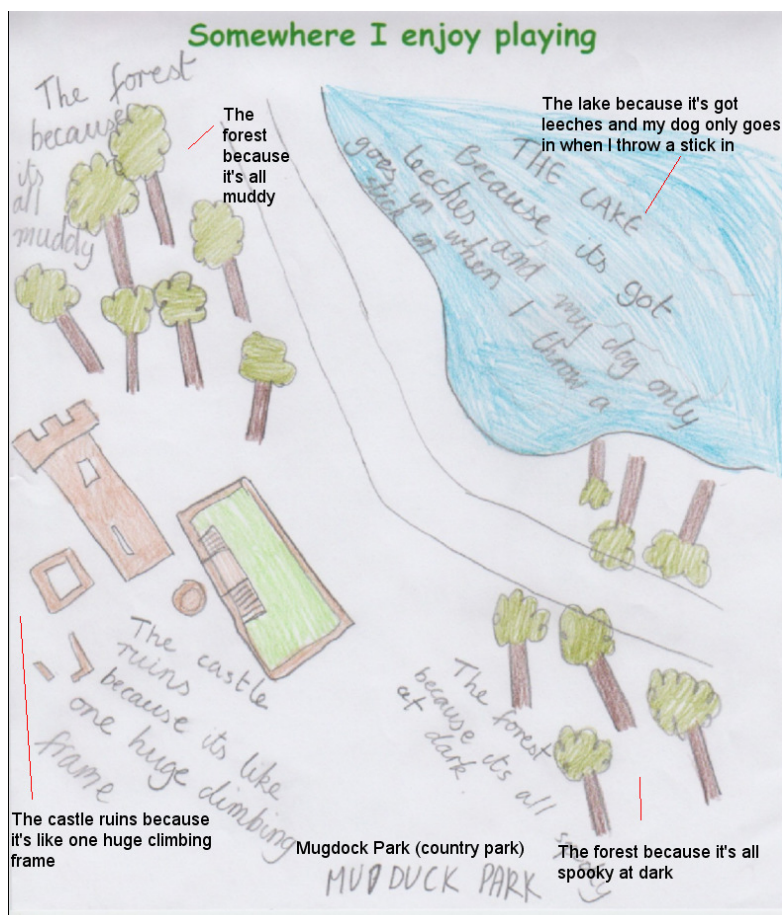
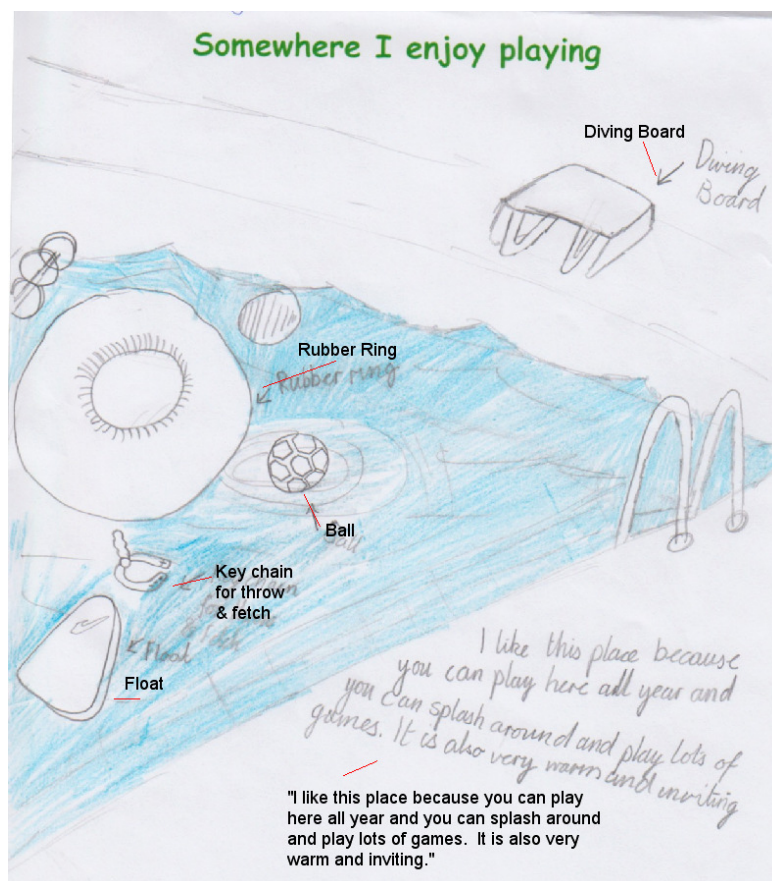


**Table 4-3 – Numbers of boys and girls in areas of high and low deprivation and their types of preferred play space**

<b>Place</b>	<b>Area of High Deprivation</b>			<b>Area of Low Deprivation</b>			<b><i>Total</i></b>
	Number of Girls	Number of Boys	<b>Sub-total</b>	Number of Girls	Number of Boys	<b>Sub-total</b>	
Area of Green Space	0	0	<b>0</b>	2	2	<b>4</b>	<b>4</b>
Beach	1	2	<b>3</b>	1	0	<b>1</b>	<b>4</b>
Football Pitch	0	2	<b>2</b>	0	3	<b>3</b>	<b>5</b>
Garden	2	0	<b>2</b>	3	1	<b>4</b>	<b>6</b>
Playground, Play Area or Park	2	0	<b>2</b>	2	0	<b>2</b>	<b>4</b>
Street	0	0	<b>0</b>	0	2	<b>2</b>	<b>2</b>
Home	0	0	<b>0</b>	0	1	<b>1</b>	<b>1</b>
Staffed Play Centre or Club	1	0	<b>1</b>	1	0	<b>1</b>	<b>2</b>
Swimming Pool	3	0	<b>3</b>	1	0	<b>1</b>	<b>4</b>

Figure 4-1 - Examples of completed draw-and-write worksheet indicating "somewhere I enjoy paying"

(Typed labels are included for legibility)



***Being Physically Active***

All of the places drawn by children in the area of high deprivation were designed for or facilitated physical activity and all bar one drew or wrote about being physically active. The one pupil who did not mention being physically active drew a beach with people sunbathing, eating ice-cream and building sandcastles. Most of the 19 children at the school in an area of low deprivation specifically drew or mentioned being physically active in their drawings of places where they enjoy playing. Of those who did not; one girl drew a field, which could facilitate physical activity, but it was not explicitly mentioned, and one boy drew his bedroom with inactive pursuits such as playing with Lego and reading.

***Reasons for Enjoyment***

The reasons that children gave for enjoying playing at the place that they had chosen to draw are summarised in Table 4.4. These fell into the following categories: having things to do or see; the space being suitable for their chosen activities; a pleasant environment; enjoyment; fitness benefits; social aspects; safety and intrinsic or extrinsic rewards.

Table 4-4 – Reasons children in high and low deprivation wrote for enjoying a space to play

Reasons for enjoyment	
School in an area of High Deprivation	School in an area of Low Deprivation
<ul style="list-style-type: none"> <li>• <b>Things to do or see</b> E.g. <i>"I go in the sea and get shells"</i> <i>"I like the Beacon because there are swings and a swoot [chute] and inside there is a soft play and a big hall and the library"</i></li> <li>• <b>Suitable space</b> E.g. <i>"It's a good hill for skateboarding"</i> <i>"It's a big roundabout and you can play different games on it"</i></li> <li>• <b>Enjoyment</b> E.g. <i>"Exciting"</i> <i>"fun"</i> <i>"have a laugh"</i></li> <li>• <b>Safety</b> E.g. <i>"I go in the sea but I don't go too far in case I get washed away"</i></li> <li>• <b>Social Aspects</b> E.g. <i>"I like the people that work there because they are fun"</i> <i>"make friends"</i> <i>"meet people"</i></li> <li>• <b>Fitness</b> E.g. <i>"I like to play on a football pitch because it will make you fit. It will make you run faster"</i> <i>"it helps you keep fit."</i> <i>"Exercising"</i></li> <li>• <b>Rewards Intrinsic</b> E.g. <i>"you learn to swim"</i> <i>"do tricks"</i></li> <li>• <b>Rewards Extrinsic</b> E.g. <i>"It's fun to play football because you can get money and win trophies."</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Things to do or see</b> E.g. <i>"I like playing in the gym hall because you get to bounce on the trampoline and swing on the frame"</i> <i>"It has lots of fun things to play with"</i> <i>"The castle ruins because it's like one big climbing frame"</i> <i>"Swings – you can go really high and then jump off"</i> <i>"trees to climb"</i></li> <li>• <b>Suitable Space</b> E.g. <i>"there is lots of room to run about in it"</i> <i>"I like the forest because it's all muddy and spooky at dark"</i> <i>"good place to rollerblade"</i> <i>"Because it's big"</i> <i>"there's lots of space"</i></li> <li>• <b>Enjoyment</b> E.g. <i>"it's lots of fun"</i></li> <li>• <b>Safety</b> E.g. <i>"no cars"</i> <i>"if you fall, you don't get hurt"</i></li> <li>• <b>Social Aspects</b> E.g. <i>"me and my friends go there"</i> <i>"lots of people can go on at once"</i> <i>"I am alone most of the time and am able to do what I want."</i></li> <li>• <b>Pleasant environment</b> E.g. <i>"smell the fresh air"</i> <i>"warm and inviting"</i> <i>"very nice"</i></li> <li>• <b>Available all year round</b> E.g. <i>"can play all year"</i></li> </ul>

#### 4.4.1.2 “Somewhere I do not enjoy playing”

The actual places that children drew under the heading “*somewhere I do not enjoy playing*” are shown in Table 4.5 and are summarised and broken down by gender and deprivation in Table 4.6. Examples of completed draw-and-write work sheets detailing where the children do not enjoy playing are also shown in Figure 4.2.

Seven out of the ten pupils in an area of high deprivation drew the playground or a play area as somewhere they did not enjoy playing and a further three children from the school in an area of low deprivation also drew this type of space. Children at both schools also drew football pitches, their own or a relative’s home and a staffed play centre or club as somewhere they did not enjoy playing. Five girls attending school in the area of low deprivation drew the school classroom and only pupils in the less deprived area drew more informal spaces for play such as the street or small areas of green space as places where they did not enjoy playing.

#### *Reasons for Non Enjoyment*

The reasons that children wrote for not enjoying playing at a place included: boredom; incivilities and disrepair; social aspects; lack of safety; unsuitable or unpleasant space for their desired activities; and noisiness, and these are summarised in Table 4.7.

**Table 4-5 – Places drawn as “somewhere I do not enjoy playing” by pupils in areas of high and low deprivation**

<b>“Somewhere I do not enjoy playing”</b>	
<b>School in an area of High Deprivation</b>	<b>School in an area of Low Deprivation</b>
<ul style="list-style-type: none"> <li>• <i>Their house</i></li> <li>• <i>The school playground</i></li> <li>• <i>A play area</i></li> <li>• <i>A Football pitch</i></li> <li>• <i>Girls brigade</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Their house or a relative’s house</i></li> <li>• <i>Their garden</i></li> <li>• <i>The school playground</i></li> <li>• <i>The classroom (at golden time<sup>6</sup>)</i></li> <li>• <i>After school club</i></li> <li>• <i>“Victoria Pitch” – a blaze football pitch</i></li> <li>• <i>Street</i></li> <li>• <i>Grassy area or field</i></li> </ul>

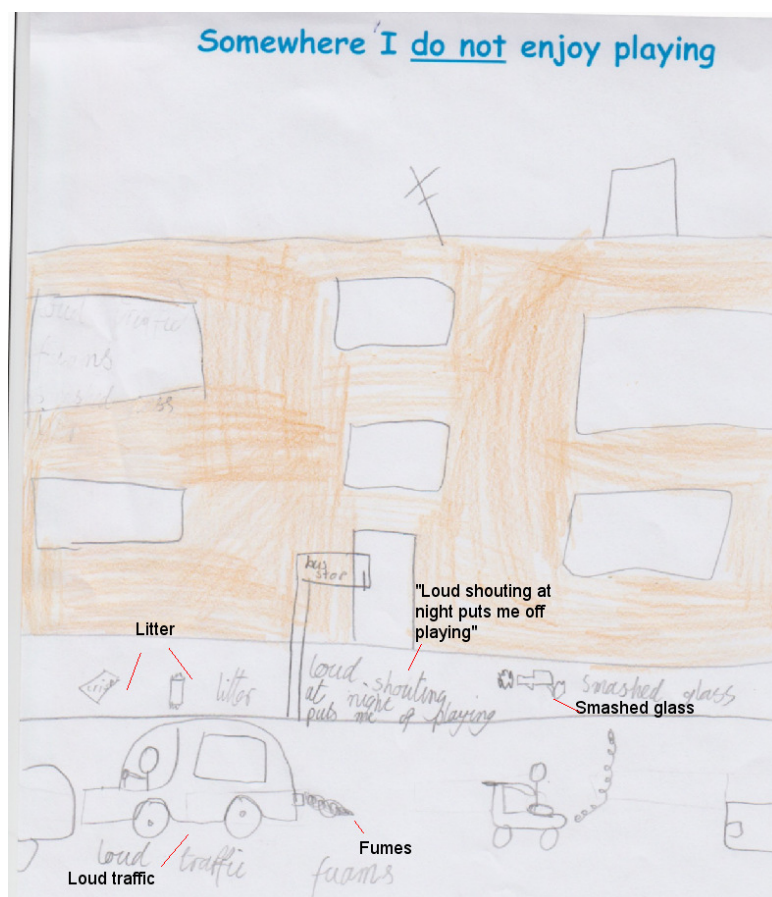
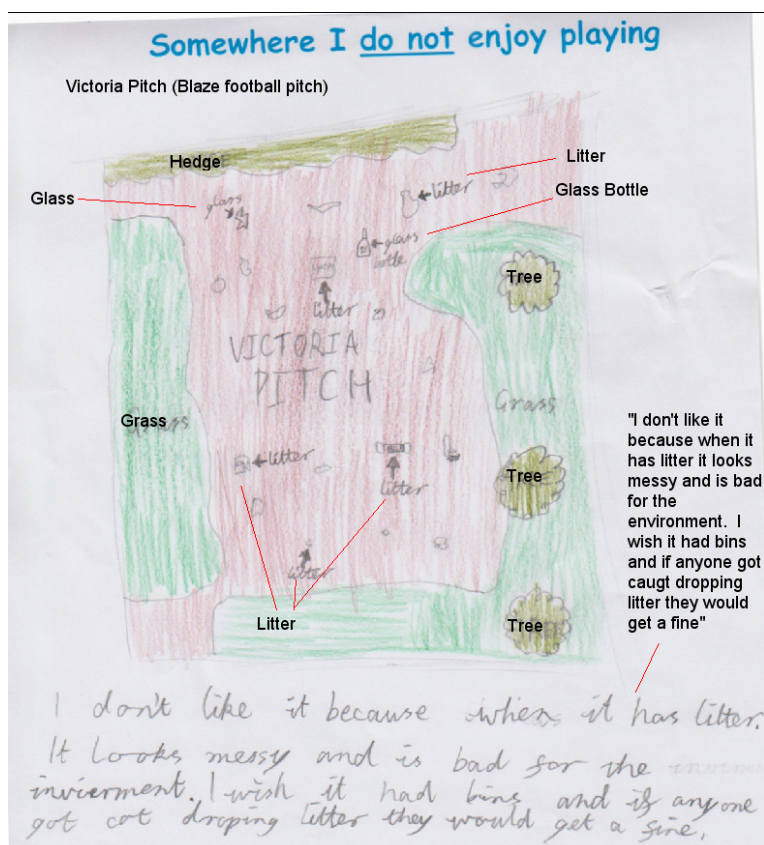
<sup>6</sup> “Golden Time” is part of a behaviour management strategy whereby children are given time to engage in fun activities of their own choice as reward for behaving well.

**Table 4-6 – Numbers of Places drawn as “somewhere I do not enjoy playing” by pupils in areas of high and low deprivation**

Place	Area of High Deprivation			Area of Low Deprivation			Total
	Number of Girls	Number of Boys	<i>Sub-total</i>	Number of Girls	Number of Boys	<i>Sub-total</i>	
Area of Green Space	0	0	<b>0</b>	1	2	<b>3</b>	<b>3</b>
Football Pitch	1	0	<b>1</b>	0	2	<b>2</b>	<b>3</b>
Classroom	0	0	<b>0</b>	5	0	<b>5</b>	<b>5</b>
Garden	0	0	<b>0</b>	1	0	<b>1</b>	<b>1</b>
Playground or Play Area	4	3	<b>7</b>	1	2	<b>3</b>	<b>10</b>
Street	0	0	<b>0</b>	1	1	<b>2</b>	<b>2</b>
Home	1	0	<b>1</b>	0	2	<b>2</b>	<b>3</b>
Staffed Play Centre or Club	1	0	<b>1</b>	1	0	<b>1</b>	<b>2</b>

Figure 4-2 – Examples of completed work sheets detailing “somewhere I do not enjoy playing”

(Typed labels are included for legibility)





**Table 4-7 - Reasons written for enjoyment of a play space by pupils in areas of low and high deprivation**

Reasons for non enjoyment	
School in an area of High Deprivation	School in an area of Low Deprivation
<ul style="list-style-type: none"> <li>• <b>Boring</b> E.g. <i>"boring"</i> <i>"no[t] funny"</i> <i>"no games"</i></li> <li>• <b>Incivilities and disrepair</b> E.g. <i>Drawing of litter and alcoholic cans/bottles</i></li> <li>• <b>Social Aspects</b> E.g. <i>"only boys play it"</i> <i>"no one there"</i></li> <li>• <b>Safety</b> E.g. <i>"dangerous"</i> <i>"you could hurt yourself"</i> <i>"no one there"</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Boring</b> E.g. <i>"nothing to do"</i> <i>"it's boring"</i> <i>"just sit around and do nothing"</i> <i>"not enough games to play"</i> <i>"I don't like the classroom at golden time because all I can do is read a book or play on the computer"</i> <i>"dull"</i> <i>"nothing to play on"</i></li> <li>• <b>Incivilities and disrepair</b> E.g. <i>"it has litter"</i> <i>"smashed glass"</i> <i>"I wish it had bins"</i> <i>"it looks messy"</i> <i>"mouldy fence"</i> <i>"everything doesn't work"</i></li> <li>• <b>Social Aspects</b> E.g. <i>"Jason does not like me"</i> <i>"you don't sit beside your friends"</i> <i>"forced to do things"</i></li> <li>• <b>Safety</b> E.g. <i>"it's very sore if you fall over"</i> <i>"traffic"</i></li> <li>• <b>Unsuitable or Unpleasant Space</b> E.g. <i>lots of leaves, snails, slugs and worms"</i> <i>"it has overgrown grass, jaggy nettles, rotten rhubarb, abandoned furniture"</i> <i>"traffic fumes"</i> <i>"scary tree"</i> <i>"no space"</i> <i>"very cramped"</i></li> <li>• <b>Noise</b> E.g. <i>"loud shouting at night puts me off playing"</i> <i>"Loud traffic"</i> <i>"the quiet corner has kids screaming at the top of their voices"</i></li> </ul>



#### **4.4.1.3 Summary of the results obtained through Draw-and-Write**

Children in both areas drew the beach, their garden, parks or play areas, a football pitch and a swimming pool as a place where they enjoy playing. Only boys reported that they liked playing at a football pitch, in the street or at home and only girls reported that they liked playing at a swimming pool, staffed play centres or clubs and play areas or parks. Children from the less deprived school drew more informal play spaces such as areas of green space or the street. Most children mentioned or drew participating in physical activity. Reasons for enjoyment fell into categories of: things to do or see; a suitable or pleasant space; enjoyment; safety; social aspects; fitness; rewards and being open all year.

Children from both areas disliked playing at football pitches, play areas, at home and at a staffed play centre or club. In total, ten children drew a play area or the school playground as somewhere they did not enjoy playing. Only girls from the area of low deprivation reported not enjoying playing in the classroom or in their garden. As with the previous worksheet, children living in the area of low deprivation drew more informal spaces for play. Reasons for non enjoyment fell into categories of: boring; incivilities and disrepair; social aspects; safety; unsuitable or unpleasant space; and noise.

#### **4.4.1.4 Reflections on the use of the Draw-and-Write Technique**

The issues relating to the use of draw-and-write presented here are not dissimilar to those discussed in a critique of the technique (Backett-Milburn & McKie, 1999). Others have also reported that children may draw pictures of things which they are able to draw or things that they think will be acceptable to the researcher (Gabhainn & Kelleher, 2002). In the class in the school in an area of high deprivation, I overheard a boy inform his classmate that he had changed his mind about what he wanted to draw because it was too difficult and he chose to draw something easier. Furthermore, not all children may enjoy drawing or feel able to produce pictures which represent how they feel about their environment; others may not find it any easier to conceptualise why they like or dislike an area than they could verbally. Other issues include whether children are overtly influenced by the researcher, teacher and their classmates. There were some barriers to play discussed in focus groups which were not

evident in any of the draw-and-write worksheets such as the presence of needles, vandalism and strangers. This suggests that using multiple methods with children does not result in replication of data. It could be that the children's play was restricted to ensure that they did not visit play areas which contained these hazards and so they would not consider them as places which they did not enjoy playing since they may not play there at all. The discussions with their classmates and the photographs may have stimulated their thoughts about such issues.

Additionally, there are no established analysis guidelines for draw-and-write and some researchers chose only to analyse the writing. Whilst Backet-Milburn and McKie (1999) argue that counting aspects of pictures produced does not suit the qualitative nature of the technique, I would argue that some qualitative researchers count responses as part of their analysis, in that they report that issues were reported "frequently", "seldom", "never", etc. Using the written element of the task verbatim and coding both the pictures and words using thematic analysis as well as understanding that the data collection process is not a neutral one, meant that the qualitative nature of the task was respected.

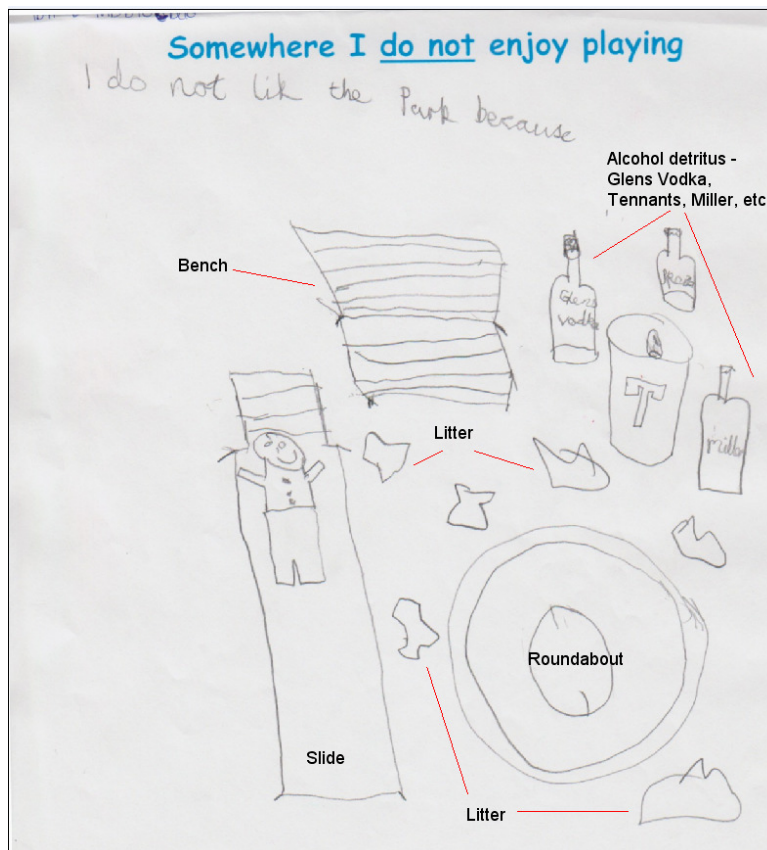
Notwithstanding these issues, most children appeared to enjoy the task and it helped them to consider their environment in relation to play. Draw-and-write proved to be useful tool with a child centred approach, recognising that children are capable of forming their own opinions and giving their views on play spaces. Even if children were not particularly skilled at drawing or did not get chance to finish their drawing (as with some pupils in the area of high deprivation), their contributions were still constructive. For example, Figure 4.7 shows a picture that a pupil did not get time to label or complete the writing; however the alcohol related detritus and other litter are clearly identifiable.

In further research using this technique, the process of how children complete the activity would be worthy of recording. The task would probably work better in a small group situation or even as part of an interview as in Horstman et al.'s work speaking to children recovering from cancer (Horstman, Aldiss, Richardson et al., 2008). This way, children could be asked to label particular items, to write more details or to explain their pictures, whilst being recorded. This

would both enhance the completeness of the data, but also encourage children to think about the topic being researched more deeply.

**Figure 4-3 – Example of an incomplete draw-and-write worksheet**

(Typed labels have been used for legibility)



#### **4.4.2 Results from Focus Groups**

Three focus groups were conducted in the school in an area of high deprivation. Each focus group had either four or five participants, was a mixture of boys and girls and lasted around 30 minutes each. I only had enough time to conduct one focus group in the school in an area of low deprivation and since all 19 pupils wanted to take part, I drew names from a hat and conducted a group discussion with ten pupils. There were six boys and four girls and it lasted approximately 40 minutes. The main points raised in the focus groups are summarised under the themes of how often and where children played; what they thought were the good and bad things about play; what they considered to be the aspects of a good play area and the potential barriers to their use.

#### 4.4.2.1 Where and how often children played

Children from both schools reported that they played almost every day:

*“nearly every day”*

*“All the chances I get.”*

P6 Pupils - School in area of low deprivation

\*       \*       \*

*“Going to the park - I usually do it everyday”*

P6 Pupil - School in area of high deprivation

Children from deprived areas were able to list a large number of hypothetical places where children might play. However, the pupils were possibly eager to please me as they appeared to try to be giving the ‘correct answer’ rather than telling me where they actually played themselves. This was most likely encouraged by the fact that I chose to write the places they suggested on a flip chart, which may have been similar to a teacher writing on a board and may have influenced them to give as many answers as they could. Additionally, other researchers have commented on the fact that when a teacher repeats a question or asks for further information, it is not usually because they require information, but tends to be indicative of a wrong answer (Dockrell, Lewis, & Lindsay, 2000)

They reported that they played in the streets and small areas of green space around their homes; in gardens or *“back courts”* (shared back yards between flats, traditionally used for drying clothes); *“the close”* (shared entrance and stairs in flats or tenements); at home or friends’ houses; at recreation facilities such as swimming pools, leisure centres and community or play centres, as well as at places they might go to less regularly such as the beach, theme parks, fairgrounds, festivals or the zoo. They also mentioned playing at supervised sports clubs or groups such as the ‘Girls’ Brigade’. The children said that they played in the street most often.

This is dissimilar to their draw-and-write work sheets as none of the children from the deprived area drew the street as somewhere they enjoy playing. It

might be that whilst the local neighbourhood streets provide the main opportunity for play, the places they chose to draw were places that they find more enjoyable, but perhaps do not get to visit as often. Additionally it could be that they did not consider more informal spaces for play until they were discussed in the focus groups. This question was not asked with pupils in the less deprived area, since I felt that it was more important to focus on their own experiences rather than getting hypothetical answers.

#### 4.4.2.2 Good things about play

The benefits of play were briefly explored with the children and the main benefit was that it was “*fun*” and enjoyable. One pupil from the school in an area of low deprivation remarked that: “*Playing’s like the best time you can have.*”

As in their draw-and-write activities, pupils seemed to be aware of some of the potential health benefits from play, and noted the physically active component of playing:

*“It’s good exercise”*

P6 Pupil - School in area of low deprivation

\* \* \*

*“It helps you get fit and if you’re lazy you just stay at home and watch TV, that doesn’t make you fit.”*

P6 Pupil - School in an area of high deprivation

The children from the school in an area of low deprivation also understood that play may also have developmental benefits and that some types of play teach them skills:

*“Pupil 1: Some games can exercise your brain and get it better at doing stuff.*

*Pupil 2: Like with Lego, you can expand your mind with building things.”*

P6 Pupils - School in area of low deprivation

\* \* \*

*“Sometimes some games that you play might help you prepare for other things, like swimming”*

P6 Pupil - School in area of low deprivation

Another benefit that the children mentioned was socialising and making friends. The children said that they played and visited play areas with their friends and that play facilitated making new friends:

*“You meet new friends.”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“Sometimes if a new person comes to the school and you play with them they might know more about you and know your name and that, make friends with you”*

P6 Pupil - School in an area of low deprivation

#### **4.4.2.3 Bad things about play**

When one pupil remarked that, *“Playing’s like the best time you can have,”* it prompted a discussion and whilst at first all of the other pupils agreed, after brief reflection they discussed how sometimes play was not as much fun. They spoke about being stuck indoors when it was raining outside, and also about not having any friends to play with:

*“I don’t have anyone on my street, so when it’s sunny I just go out and kick the ball off the wall, but it can get boring really quick if you’ve got no one to play with.”*

P6 Pupil - School in an area of low deprivation

They also discussed that some forms of play might not be beneficial to health and compared playing with games consoles to sweets and smoking. They said that playing with games consoles might be positive if it was raining as they give you something to do, but that they could also be antisocial:

*“Games consoles can keep you doing something when it’s raining or something”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“You may like, for instance, it’s a PSP [hand held games console] and you just get your head stuck in it and you don’t chat to anyone”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“Pupil 1: They’re [games consoles] bad for you but fun.*

*Pupil 2: Like Sweeties.*

*Pupil 3: You can get addicted to them.*

*Pupil 2: Like smoking.”*

P6 Pupils - School in an area of high deprivation

#### **4.4.2.4 Aspects of a good play area**

In response to being shown some photographs of play areas, the pupils gave reasons for liking them or not. These general reasons were similar to those collected during the draw-and-write activities, but it was difficult to explore these further.

The main reason that the children gave for why they might like to play at a particular play area included being able to participate in a variety of activities because of adequate space or provision of equipment. A large play area meant that children could use the space for other activities rather than solely playing on the equipment, e.g. dancing, skateboarding or football.

*“Because you get to dae dances and all that on the grass.”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“I think number one’s the best because it’s got lots and lots of things. See like that [points to equipment], and there’s two of them, and then there’s a swing and there was two swings and there’s two aw, like everything. There’s a big space to like run about in and dance and all that.”*

P6 Pupil - School in an area of high deprivation

Additionally, children spoke positively about the look of play areas which were clean, tidy and colourful. Reacting to a photograph of a play area, one P6 Pupil from the school in an area of high deprivation said that he did not like the appearance of houses that surrounded a play area, as they were dirty:

*“But the hooses are black and they’re supposed to be brown”*

P6 Pupil - School in an area of high deprivation

He talked positively about those in another photograph which were clean and suggested that if the houses were clean, then residents might look after the play area:

*“Pupil 1: The hooses look cleaner than in the other wans.*

*Pupil 2: It’s not dirty.*

*Chloé: OK. So do you think the houses are important? Does that... what does that tell you about the place?*

*Pupil 2: It just looks clean.*

*Pupil 1: Makes it if it’s clean... like they would take care o’ the park.*

*Chloé: Right, OK.*

*Pupil 1: A clean scheme.”*

P6 Pupils - School in an area of high deprivation

The play areas shown with the “dirty” and “clean” houses are shown in Figures 5.4 and 5.5. It is worth noting that the play area with “dirty” houses (actually a



primary school) in Figure 4.4 was taken in the affluent West End of Glasgow in the least deprived quintile of SIMDgla, whilst the more modern, “*clean*” flats in Figure 4.5 are from a more deprived area in the middle quintile SIMDgla. The more modern flats may be more similar to the style of housing in the more deprived neighbourhood where the child lived.

**Figure 4-4 - Photograph which pupil considered to have dirty houses**



**Figure 4-5 – Photograph which pupil considered to have clean houses**



#### 4.4.2.5 Barriers to using play areas

When showing children photographs, they were asked for their opinions of play areas and how they thought they could be improved. They found it easier to articulate the things that they did not like compared with reasons for enjoyment.

##### ***“Boring”***

The word *“boring”* was undoubtedly the most common word used to describe play areas which they did not like and children spoke about the small size of play areas or the equipment provided:

*“There’s not that much things to play on.”*

*“It doesn’t look like a very big park”*

*“There’s no really anything to dae, all you dae is go up and doon stairs and doon a stupid tube.”*

P6 Pupils- School in an area of high deprivation

\* \* \*

*“It doesn’t look at all exciting”*

*“it looks dull”*

*“very boring”*

P6 Pupils - School in an area of low deprivation

The word *“boring”* was also used in a different sense, to describe a play area that looked dangerous:

*“It looks boring cos you could kill yourself if you went up the top bit”*

P6 Pupil - School in an area of high deprivation

It is possible that children used the word to simply describe a play area that they did not like, or if they found it difficult to articulate the reasons why they found places *“boring”*, they instead gave another reason of its poor quality.

The children also said that one of play areas shown (shown in Figure 4.6) was so old and poorly equipped that they might not even realise it was designed for play:

*“If you went there I don’t think you would know that was a park. I think you would just know that it was a kinda decoration kinda thing.”*

P6 Pupil - School in an area of low deprivation

**Figure 4-6 – Photograph of a poorly equipped play area which children thought was a “decoration kinda thing”**



However, one pupil noted that even though some of the play areas were poorly equipped or maintained, he might still play there:

*“If we just walked past that and, like, if like, if me and my brother just saw that we would want to go and play in it even though it’s a bit dull, it’s still somewhere to play.”*

P6 Pupil - School in an area of low deprivation

### ***Incivilities***

Children also said that they did not like play areas which were unclean or poorly maintained and used words such as: “horrid”; “filthy”; “jakey”<sup>7</sup>, “Scabby” and

<sup>7</sup> “jakey” is usually used to describe an unclean drunken or homeless person. Here it is used to describe the appearance of a play area.

*“boggin’”* to describe some play areas and suggested that they would get dirty if they played in the play areas:

*“Cos it’s all dirty and things and then see you go in there and you’re just gonna get all black.”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“You get muddy, you get really mucky”*

P6 Pupil - School in an area of low deprivation

Some also commented that they disliked vandalism and graffiti since they made the play areas look unpleasant:

*“They [vandals] just make the park look horrible, and dirty.”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“It [vandalism] doesn’t make the environment look very nice”*

P6 Pupil - School in an area of low deprivation

\* \* \*

*“cos all like the menchie<sup>8</sup> [graffiti] and that - it doesn’t decorate it!”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“Chloé: Ok what do you dislike about graffiti?”*

*Pupil 1: Cos it says all the sweary words, sweary words and everything.*

*Pupil 2: And messes everything up. And makes things look ugly.”*

P6 Pupils - School in an area of high deprivation

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<sup>8</sup> “menchie”: A slang term, stemming from the word mention, used to describe a form of graffiti which depicts gang tag-lines or people’s names.

Some children from the deprived area suggested that they did not mind graffiti, but they did not elaborate why when prompted. Instead they changed their stance, possibly because they were uncomfortable being singled out and questioned individually.

*“Chloé: What do you think about all the vandalism and graffiti? Does it bother you?”*

*Pupil 1: Aye.*

*Pupil 2: Doesnae bother me.*

*Chloé: Do you think it’s a nice thing, do you think it’s a bad thing? Do you think...*

*Pupil 1: I think it’s bad.*

*Chloé: Why do you think it’s a bad thing?*

*Pupil 2: I think it’s alright.*

*Chloé: You think it’s alright. Why do you think it’s alright?*

*Pupil2: I don’t know.*

*Chloé: If it doesn’t bother you, why does it not bother you?*

*Pupil 2: It does in a way.”*

P6 Pupils - School in an area of high deprivation

When children were asked why they disliked graffiti, one group seemed to be unsure, but settled for the unlikely reason that the spray paint could be wet:

*“I wouldnae go in there cos see all inside the tunnel, the mad chute, there’s menchie aw inside that, inside the chute. Cos it could have just been done and you slide doon it and it aw goes on you.”*

P6 Pupil - School in an area of high deprivation

Children from the school in an area of low deprivation suggested that it may mean that undesirable people frequented the play area:

*“Well, if there was graffiti somewhere, I wouldn’t really like to go there cos it would give me a bad impression. Like there might be like lots of like neds<sup>9</sup>.”*

P6 Pupil - School in an area of low deprivation

The pupils were unsure who was to blame for vandalism and graffiti and some of the potential culprits included: “neds”; “gangsters”; “teenagers”; “bad people”; “junkies” or “big bad boys”. However, when asked if graffiti or vandalism would put them off from using a play area, the children at the school from an area of low deprivation suggested that these people who vandalise play areas may not live within the same area and so it might be safe to visit it:

*“It depends if there’s any bad people around the area. Cos there might be people that come from a while away just to do it.”*

P6 Pupils - School in an area of low deprivation

The pupils from the area of low deprivation discussed whether vandalism was widespread and some pupils thought that it was present in all play areas whilst others believed that it would depend on the area:

*“I think every park I’ve seen has been vandalised.”*

P6 Pupil - School in an area of low deprivation

\* \* \*

*“It’s mostly in Glasgow really. When I went to France to a park and they had no vandalism at all.”*

P6 Pupil - School in an area of low deprivation

They also suggested that people vandalised “nice” things and so vandals may not damage play areas in deprived areas:

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<sup>9</sup> Ned” is a Scottish derogatory term used to describe young people, similar to the term ‘chav’ in England. The Concise Oxford English Dictionary defines ‘ned’ as “a hooligan or petty criminal; a stupid or loutish boy or man.”(2008)



*“Pupil 1: It might be a really, really, really, really, really, really, really nice place.*

*Chloé: So what do you mean by ‘nice place’?*

*Pupil 1: No-one’s bad there or anything.*

*Chloé: OK, so everybody’s good and well-behaved and nobody wants to vandalise anything?*

*Pupil 2: That’s the reason why they vandalise it.*

*Pupil 1: I know, cos it’s nice. Anything that’s nice*

*Pupil 2: If you went to a bad part they wouldn’t vandalise it cos it’s already vandalised.”*

P6 Pupils - School in an area of low deprivation

### ***Safety from injury***

All children were very risk aware and mentioned the risk of injury on multiple occasions. They considered some play areas to be “*dangerous*” and consistently mentioned possible ways that they might fall or come to harm:

*“You could fall, smash your head open”*

P6 Pupil - School in an area of low deprivation

\* \* \*

*“Could fall off something.”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“You can kill yourself there.”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“I think you could hurt yourself badly in them.”*

P6 Pupil - School in an area of high deprivation

The children in both areas considered the presence of safety surfacing to be a positive aspect of a play area since it reduced the impacts of falls, but also suggested that they play areas should be made safer:

*“The red bits [safety surfacing] are safe cos if you fall you don’t hurt yourself, as sore as you hurt yourself on the ground”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“I thought number four’s quite safe because it had that red stuff [safety surfacing] and it’s soft”.*

P6 Pupil - School in an area of low deprivation

\* \* \*

*“I think the council should make things a lot safer for little...for small kids to go on”*

P6 Pupil - School in an area of high deprivation

Risk of injury was increased by the presence of broken glass and needles left in the play areas, but this was only mentioned by the children living in an area of high deprivation.

*“I hate it in the park because like say somebody could have smashed a bottle and you could be running about playing tig and you could trip up and get it stuck in your knee. Or else there could be junkie needles lying about and that might get stuck into you.”*

P6 Pupil - School in an area of high deprivation

\* \* \*

*“Pupil 1: Sometimes I don’t go if I look out my windae there’s like people running about the park with bottles and that at night and they just drink and sit and smoke and all that and the next day I get up and there’s bottles and glass bottles and everything there.*

*Pupil 2: Smashed everywhere.*



*Pupil 1: And that's how I'm like, no that good at going to the Beacon [local staffed indoor and outdoor play centre] cos I'm, I don't go Monday to Fridays cos of that."*

P6 Pupils - School in an area of high deprivation

When these children were shown photographs of some poorly designed or maintained play areas (including the one shown in Figure 4.7), they suggested that it looked like they might contain injecting needles or broken glass:

*"That's where you could find needles."*

P6 Pupil - School in an area of high deprivation

\* \* \*

*"It looks like the sort of place you'd find syringes and that or like bottles, smashed bottles and that."*

P6 Pupil - School in an area of high deprivation

### ***Safety from People***

The presence of syringes and broken glass was linked with the children's perception that "junkies" and "neds" were present in play areas which acted as a barrier to play:

*"I don't like the junkies and that that go about and the needles."*

P6 Pupils - School in an area of high deprivation

Furthermore, two children from the school in an area of high deprivation talked about a recent murder which meant that they were reluctant to go to certain play areas:

*"Chloé: What about you? What do you not like?*

*Pupil 1: Cos there's like junkies and needles and everywhere.*

*Chloé: Ok so you don't like the needles?*

*Pupil 2: And that's how I don't go up to the flats because my mum's cousin got murdered. That's how I don't go up there anymore.*

*Pupil 3: And there was needles and everything there.*

*Pupil 2: So I don't go back up."*

The children living in an area of low deprivation suggested that "neds" and intoxicated people made them concerned that they may be assaulted:

*"It might get out of hand. People might try and start a fight."*

P6 Pupils - School in an area of low deprivation

\* \* \*

*"Well me and my friends like I live in the big lane but we're not allowed to go very far because one day like there's a pub not very far down the road from us and sometimes people come up that are drunk and can start bothering us. That does happen."*

P6 Pupils - School in an area of low deprivation

\* \* \*

*"Cos there's lots of neds in the flat and near it and I don't go to it."*

P6 Pupils - School in an area of low deprivation

These factors meant that either the children themselves or their parents limited their mobility:

*"Sometimes I would choose not to go far in case something happened."*

P6 Pupils - School in an area of low deprivation

\* \* \*

*“Pupil 1: There’s nothing really near me, the furthest I’m allowed to go is just down the road there’s the spare the ground and there’s a wee tree there and me and David always go there to dae some swinging on the ropes that’s there. That’s as far as I’m allowed.*

*Chloé: Ok so you’re only allowed to go so far away from your house?*

*Pupil 2: Sometimes.*

*Pupil 1: Especially after two murders up the flats about two weeks ago or one week ago.”*

P6 Pupils - School in an area of high deprivation

#### **4.4.2.6 Socioeconomic Differences**

Since only two schools were recruited for this project it is difficult to ascertain whether differences in results are due to deprivation or neighbourhoods.

Some aspects were reported similarly across both groups of children. For example most children suggested that play areas were not designed, equipped or maintained well enough for them to be inviting and safe. Most children also reported limits on their independent mobility. A dislike of vandalism or graffiti was reported by children in both areas since they considered it unsightly, however a few children from the deprived area were ambivalent towards it. Although these children suggested that they did not like play areas which contained graffiti, few could articulate why it might mean that they do not play there and instead suggested that it might damage their clothing. This is in contrast to the children from the less deprived area who associated the presence of graffiti with its perpetrators. If graffiti is more common in deprived areas, children may be habituated to its presence and as such may not regard it as a particular problem.

The reports of barriers to play from children living in the deprived area were due to more serious forms of misuse and crime such as the presence of injecting needles and broken glass, and murder. The children living in a less deprived area did not mention these things in the focus group, although three children drew broken glass as a barrier to play in their draw-and-write worksheets. Similarly, both groups of children were concerned about “*neds*”, but the children living in the deprived area also mentioned “*junkies*” and “*jakeys*”.

#### 4.4.2.7 Summary

The children reported a lot of places that might facilitate play and said that they engaged in play on a daily basis. In general they viewed play as positive, with the primary benefit being enjoyment. Children were also aware of health, developmental and social benefits of play, but understood that there were different benefits from different types of play. A good play area was described as being clean, aesthetically pleasing and facilitative of different types of play due to its size or provision of equipment. Children were very risk aware and talked about safety from injury or people as a barrier to play, but at the same time reported that play areas looked boring. Incivilities and vandalism were barriers to most children and were linked to the presence of undesirable people or areas. Children living in the deprived area reported more serious barriers to play such as the presence of syringes, alcohol and drug users and violent crime than those in a less deprived area.

These findings are consistent with those reported in the studies and grey literature described in Section 4.11, above. However this study adds further details specifically relating to outdoor play and play areas.

#### 4.4.2.8 Reflections of conducting research with children in a school setting

I did not have experience of controlling large groups of children. Despite my good intentions not to be seen as too authoritarian in order that the children felt comfortable and that they did not view me as a teacher figure, my inexperience meant that during the draw and write activity with 19 children, I quickly resorted to raising my voice and instructing children instead of asking them to do things. During the focus groups, I spent a lot of time asking them to sit down; not to touch the tape recorder; or not to talk over the top of one another, as well as constantly trying to keep them interested and engaged. It became apparent when I read the transcripts that sometimes I had not been actively listening to their responses. I read that a boy had spoken a line of French (*"dans le jardin. That's French"*) during the focus group and did not remember this. On listening back to the tape, I appeared to be completely oblivious to it at the time also.

A final point is one concerning confidentiality. In the midst of one of the focus groups, when I had gathered the children around the table to look at photographs, a teacher walked in unannounced to scold the children for standing up and leaning on the table; seemingly improper conduct for school. He did not acknowledge me or the tape recorder and reproached the children for doing something that I had asked them to do. Whilst I apologised to the teacher and to the children for getting them into trouble, I was irritated that he had walked in unannounced. Although no particularly sensitive issues were discussed during the focus group, it raises the point of how easily confidentiality can be breached in the school setting.

## **4.5 Further Research**

It was very difficult to recruit and gain access to schools for this research which is an issue that has been experienced by other researchers (Delamont, 1992). Therefore, only two schools were recruited. Further research may benefit from starting the recruitment process very early and possibly trying to incorporate it into the curriculum as Veitch and colleagues (2008) have shown is possible in Australia. Alternatively, after school 'clubs' provided by most schools, could provide an opportunity to conduct research with children without them missing any school work. Further research is required in order to assess how children's perceptions are formed (e.g. via their own experiences, the media or their parents' concerns) and whether this impacts directly on their physical activity or play behaviour.

## **4.6 Conclusion**

This research suggest that girls and boys between the ages of nine and eleven from Glasgow enjoy playing at a variety of different places and that they recognise the health and development benefits that it can bring. Children had a high level of risk awareness and concurrently reported that they thought play areas boring as well as dangerous. Children mentioned injury from equipment and stranger danger as barriers to using play areas. They also disliked vandalism and graffiti in play areas, but this may or may not act as a barrier. The barriers reported by the children living in an area of high deprivation were more serious in nature, including the presence of syringes, broken glass and violent crime. In

a quality audit of play areas in Glasgow (Chapter 3), some of the issues of physical incivilities that children referred to as barriers to play were found to be worse in areas of high deprivation, such as the presence of glass. There were also higher levels of broken equipment, litter, rust and chipping paint in areas of high deprivation which links with the reported barriers of vandalism and an unpleasant or unclean play area. Children living in more deprived neighbourhoods, who may have a greater need for free access play provision, thus experience greater barriers to using outdoor play areas.

## **4.7 The contribution of this research to the academic literature**

This part of the thesis sought children's perceptions of play and their local play provision through focus group discussions and 'draw-and-write' activities. There is limited research examining children's perspectives of play and their local provision and what is available mainly comes from the grey literature (Foster, 2007). This research makes an original contribution to this area of research by suggesting that children living in Glasgow have similar concerns about their neighbourhood and face similar barriers to using outdoor play areas as children living in other areas of the UK (Barnardo's, 2004; Children's Play Council, 2002; Foster, 2007; Thomas & Thompson, 2004) and/or world (Hume, Salmon, & Ball, 2005; Romero, 2005; Veitch, Bagley, Ball, & Salmon, 2006). Additionally this research compared the perceptions of children living in two socially contrasting areas, albeit with a small sample size, and suggests that children living in more deprived communities may face more and more serious barriers to outdoor play. Furthermore, whilst the use of the 'draw-and-write' technique has been used in health education research (HEBS, 1998; Williams, Wetton, & Moon, 1989), it is a relatively novel technique to be used in the field of physical activity and health. Finally this research has uniquely highlighted that the barriers which children reported as being important, were found to be quantifiably worse in deprived areas, thus children in deprived areas face more and/or more serious barriers to the use of outdoor play areas in Glasgow.

## **Chapter 5    Adults' Perceptions of Children's Outdoor Play Areas**

This final results chapter describes the research conducted to investigate adults' perceptions of play areas in Glasgow. It includes: a literature review which covers how adults' perceptions of their neighbourhood and local play provision might impact upon their use by children; a description of the methods of recruiting participants and conducting qualitative research to explore their views; the results from the interviews and discussions with maintenance men, fieldworkers and parents; and a discussion of their implications and limitations.

### **5.1 Introduction**

Parents are often the decision makers in regards to where and when their children play (Tucker, Gilliland, & Irwin, 2007) and so their perceptions of the local environment as well as their own values about play may influence whether or not their children use play areas.

#### ***5.1.1 Parental Influences on Children's Play***

Individual and social factors are important in determining where children play and research has found that parents said their children are more likely to play outside or at the park if they had friends or relatives to play with (Sallis, McKenzie, Elder et al., 1997; Valentine & McKendrick, 1997; Veitch, Bagley, Ball et al., 2006). Children's use of play areas may also be enhanced by their parents' positive beliefs about play or physical activity and whether parents are physically active themselves (Brustad, 1993; Miles, 2008; Shannon & Shaw, 2008).

As discussed in Chapter 4, the safety and facilities on offer at play areas help to determine whether they are more likely to be used (Gilliland, Holmes, Irwin et al., 2006; Sallis, McKenzie, Elder et al., 1997). The most important factors in deciding whether to use a play area may vary by ethnicity or social class; these being inextricably linked in Sallis et al.'s (1997) paper. This linkage of race and social class is a common feature of US neighbourhoods. They found differences

in which factors influenced the choice of play area for parents of Mexican American children, who also had significantly lower socioeconomic status, than for parents of white children. The parents of Mexican American children placed a higher priority on the provision of various amenities, such as toilets and lighting, as well as the quality of the play equipment and the availability of organised games or supervision, than those of white children. Parents of white children were more concerned about issues relating to safety, convenience (including distance, cost and too many children at play areas) and whether their children's friends went there, than those of Mexican American children. The authors suggest that these differences may be because of the lower socioeconomic status of the parents of Mexican American children who live in deprived areas which may have poorer quality provision and so place a high importance on the play value of the site, which parents of white children may take for granted. Cost may not have been an issue for the parents of Mexican American children since they may not be able to afford to choose to visit sites which charged an entrance fee and so free access was assumed. In the same way, in my research it is possible that adults' perceptions of play provision and their local neighbourhood may be driven factors associated with social class and area deprivation.

### ***5.1.2 Parent's perceptions of their neighbourhood and implications for their children's free play***

In research which has sought parental perceptions and attitudes about children's play, it has been reported that concerns about safety mean that parents impose strict limits on children's independent mobility (how far from the home their children may travel or play unaccompanied)(Page, Cooper, Griew, Davis, & Hillsdon, 2009; Prezza, Piloni, Morabito, Sersante, Alparone, & Giuliani, 2001; Veitch, Bagley, Ball et al., 2006; Wen, Kite, Merom, & Rissel, 2009). Parents' reported worries concern hazards associated with 'stranger danger', traffic and other children or teenagers.

A number of different qualitative methods have been used to investigate barriers to children's play amongst American Indian populations: focus groups with parents; interviews with children; and ethnographic observation. Parents reported that there was a lack of facilities particularly for younger children and



teenagers, but local health and tribal leaders highlighted that the parents' perceptions of what was available was different to the actual provision of activities. This mismatch between actual provision and perceived level of provision may be due to aspects of quality, safety or cost that mean the facilities are not suitable. Parents did not feel that it was safe to allow their children outside and reported that they would need to drive in order to reach a park. Issues relating to bullying, gangs and vandalism as well as the poor quality and safety of public recreation facilities (including parks and play areas) were also barriers to parents allowing their children to play outside (Adams, Harvey, & Brown, 2008). Other research has found that parents are concerned about teenagers and gangs (Jenkins, 2006; Valentine & McKendrick, 1997; Veitch, Bagley, Ball et al., 2006) and risks of injury (Boufous, Finch, & Bauman, 2004; Jenkins, 2006) when considering allowing their children out to play. However, Jenkins (2006) found that parents perceived the risks from strangers and teenagers to be greater than risk of injury.

Parents' fears about strangers was examined in qualitative research by Valentine and McKendrick (1997). They spoke to parents living in rural and urban areas of North West England and found that perceived adequate access to play provision was not predictive of greater outdoor play by children, but instead parents' safety concerns and social norms determined where and how much children played. Parents reported restricting where their children could play unaccompanied due to worries about the actions of strangers. This 'stranger danger' fear was apparent amongst parents living in areas of predominantly high and low social class, but social norms in these areas differed. Working class parents reported that they felt under pressure to allow their children greater freedom, whereas mothers from middle class areas reported that they were marginalized if they did not accompany their children from school or organised activities. Children from single parent families and those living in more deprived neighbourhoods were more likely to be given greater freedom and were more likely to be described as 'outdoor children' by their parents. However, their parents reported less satisfaction with local facilities than parents in middle class neighbourhoods who had the resources (both financial and time) to take their children to clubs and supervised activities. In general, children played under adult supervision, in the home or garden, or at organised clubs or activities, which the authors describe as "*institutionalised play*" (Valentine &

McKendrick, 1997, Pg. 229). They suggest that supervised play may not offer the same benefits as free play:

*“Institutionalised play is characterised by being organized, competitive and routinized. It is usually adults who establish the rules and regulations and who take responsibility for the decision making. According to Alder and Alder (1994), institutionalised play is therefore hierarchical and serious, rather than spontaneous and carefree, and so denies children the sort of opportunities to develop self-reliance, co-operation, problem solving and interpersonal skills which more spontaneous independent play is credited with teaching them.”*  
(Valentine & McKendrick, 1997, Pg 229)

This ‘stranger danger’ fear and its links to reduced independent mobility have also been documented in other research (Prezza, Pilloni, Morabito et al., 2001; Timperio, Salmon, Telford, & Crawford, 2005; Veitch, Bagley, Ball et al., 2006)

Independent mobility is an important factor in children’s outdoor play. In research with parents in Australia, parents frequently reported that they did not allow their younger children (aged between six and eight years old) enough independent mobility to visit local parks. The fact that parents would therefore have to accompany children was one of the most reported barriers to visiting such places (Veitch, Bagley, Ball et al., 2006). Independent mobility is likely to increase with the age and maturity of children (Prezza, Pilloni, Morabito et al., 2001; Timperio, Salmon, Telford et al., 2005) and boys may be allowed more freedom than girls (Page, Cooper, Griew et al., 2009; Prezza, Pilloni, Morabito et al., 2001). Restrictions on independent mobility may be based on other perceptions as well as parental concerns of abductions or assault, such as familiarity with neighbours, neighbourhood social cohesion or parents’ values of play.

Research with mothers in Italy found that boys were given more freedom than girls and that children who had an internal courtyard adjacent to their home, or who lived near to a park, were more likely to be able to play with limited adult supervision (Prezza, Pilloni, Morabito et al., 2001). Mothers who reported having positive relationships with their neighbours, and those who lived within more modern neighbourhoods, allowed their children a greater level of autonomy, but

their perceptions of safety from crime or traffic were not significantly associated with independent mobility, despite the fact that mothers did report that their anxieties about strangers and traffic meant that they chaperoned their children to school. The authors' measure of independent mobility included children being able to play in the aforementioned internal courtyards (the most common location for play) without supervision. However due to the close proximity of these spaces to the home, it could be argued that this is not an example of true independent mobility and that parents are still able to supervise their children. This may mean that the safety of the neighbourhood surrounding their home may be less important in determining whether children play in these areas. They found that children with greater independent mobility played with their friends, neighbours or relatives more often.

Safety from traffic has also been reported as being very important to parents when considering allowing their children out to play (Hume, Timperio, Salmon, Carver, Giles-Corti, & Crawford, 2009; Timperio, Crawford, Telford et al., 2004; Timperio, Salmon, Telford et al., 2005; Veitch, Bagley, Ball et al., 2006; Weir, Etelson, & Brand, 2006). Being overweight or obese was significantly related to parents' worry over heavy traffic in their neighbourhood amongst children aged 10 to 12 years, such that children were 40% more likely to be overweight or obese than other children if their parents held these views (Timperio, Salmon, Telford et al., 2005).

In a large cross sectional household survey across seven European cities in France, Germany, Budapest, Slovakia, Italy, Switzerland and Lithuania, adults (including parents and non-parents) reported their perceptions on neighbourhood safety and their willingness to recommend children to use local, public play facilities. Those who felt safe in their neighbourhood were 2.83 times more likely to advocate the use of local play areas compared to those who did not feel safe (Miles, 2008). Similarly, a recent review of the influences of neighbourhood safety on children's physical activity found that parental perceptions of an unsafe neighbourhood were associated with lower physical activity levels amongst children (Carver, Timperio, & Crawford, 2008).

However, these links may depend on the age of the child. Research has shown that parents' rating of the importance of safety when choosing a play area

decreased from when their child was five years old to when they were six years old (Sallis, McKenzie, Elder et al., 1997). Parental perceptions of living in an unsafe neighbourhood were associated with increased risk of overweight amongst seven year old children (Lumeng, Appugliese, Cabral, Bradley, & Zuckerman, 2006) but not for those aged five and six (Timperio, Salmon, Telford et al., 2005), or with levels of obesity or time spent playing outdoors at three years (Burdette & Whitaker, 2005). Since children at this younger age are most likely to be accompanied in their neighbourhood or whilst at play, it may be that parents' perceptions of neighbourhood safety have less of an influence than they might on older children. This is in line with research which found that issues relating to social factors were more important than environmental factors in predicting the active travel of nine year old children (Hume, Timperio, Salmon et al., 2009). The authors suggest that at this age children may not be allowed to travel alone and so environmental factors are less important. Aspects of the environment, such as road safety, were more important for predicting active travel amongst teenagers.

A survey of parents of children aged between five and ten years investigated the levels of their concerns relating to fear of gangs and other children, crime, traffic and personal safety within their New York City neighbourhood (Weir, Etelson, & Brand, 2006). Greater anxiety about these safety issues were found for parents living in inner city areas compared to suburban areas, which was concurrent with a 25% greater level of violent crime in inner city areas. They found a weak negative correlation (-0.18) between overall perceived safety and children's physical activity amongst parents living in the city, but not amongst more middle class parents living in the suburbs. This perception of a more hazardous neighbourhood was related to greater levels of physical activity amongst children living in more affluent areas, and to less body fat amongst those in more deprived neighbourhoods. The authors suggest that this unintuitive finding may be related to the issue that information was collected about levels of problems rather than about anxieties about these hazards and that there may be other aspects (e.g. values about play or physical activity, social cohesion, current physical activity level, etc) which have a greater influence on physical activity.

In a recent review article concerning the safety of neighbourhoods and children's physical activity levels the authors make recommendation for more research investigating the links between objective measures of safety and levels of physical activity as well as longitudinal research in order to determine causality (Carver, Timperio, & Crawford, 2008). However, whilst objective measures of physical safety features within neighbourhoods may impact upon parents' perceptions of traffic safety, parents' fear of strangers are driven by more than physical features of the environment and so the value of parents' perceptions cannot be ignored.

## **5.2 Aims**

The aim of this section of the thesis was to assess adults' perceptions of the provision and quality of play areas in Glasgow. This was exploratory research designed to further our understanding of the benefits and barriers associated with visiting outdoor play areas and to investigate whether socioeconomic deprivation featured in these opinions.

Views about play provision in Glasgow were sought qualitatively from play area maintenance men, parents of children attending a school in an area of high social deprivation and fieldworkers who conducted the quality audit discussed in Chapter 3. This qualitative research was conducted between August and November 2006.

Views were sought from maintenance men since it was thought that they would have 'expert' knowledge on the provision, quality and use of play areas in Glasgow. As mentioned in Chapter 4, I had difficulties recruiting schools to be part of this research and I similarly struggled to recruit parents. The multi methods design meant that there was not enough time to recruit additional parents from elsewhere, but the views of fieldworkers (two of whom were parents) were opportunistically sought during a meeting about the quality audit.

## 5.3 Methods

### 5.3.1 Qualitative Research

Qualitative methods are suited to investigating “*how the social world is interpreted, understood, experienced, produced or constituted*” (Mason, 2002, Pg.3) and as such are appropriate for the exploratory nature of the aims of this research. They also add context and depth to the quantitative data presented in Chapters 3 and 4. This research was approached with the understanding that qualitative research would generate data on adults’ understanding, perceptions, beliefs and interpretations of the play provision in Glasgow, and not quantifiable information which was sought in Chapters 3 and 4.

Semi-structured interviews were chosen for the method of data collection with maintenance men, in order that they would feel comfortable revealing aspects of their job or morale which they may not have been able to talk about if they were in a group situation or in front of colleagues or managers. Additionally, focus groups would have caused more disruption to the staffing levels for GCC. In contrast, focus groups were the chosen method for speaking to parents. This was based on the advice of a head teacher who believed parents may feel more confident speaking as part of a group than being interviewed individually. Additionally, parents may gain more benefit from the social nature of a focus group.

### 5.3.2 Recruitment and Fieldwork

#### 5.3.2.1 Maintenance men

##### *Recruitment*

Since the data on the locality of play areas took over six months to obtain, there was concern over the length of time that it might take to gain access to recruit and arrange interviews with the play area maintenance employees. In the first instance, a letter was sent to the Policy and Development Officer within the Land Services department of GCC who had previously attended an initial advisory meeting for this project. This meant that he was already aware of the proposed

research and it was hoped that the request for access would reach the correct personnel quicker than if a Human Resources department had been approached. The letter was passed on quickly and permission from the 'Head of the Parks Department' was granted within a week.

A manager in one of the park depots in Glasgow was assigned to the role of liaising with me to arrange the interviews. During my first meeting with him, he managed to arrange for me to meet with eight employees, working in different areas of the city, in both 'on the ground' roles and more supervisory roles. It took him approximately ten minutes whereas it could have taken me weeks or even months. This arrangement meant that it was not necessary to contact individual managers at each depot in the city and then try to coordinate interviews with some of their employees. Instead all of the participants came, during their working day, to a park depot on a pre-arranged day to be interviewed. It also meant that the research was conducted quickly and there was less disruption to the depots and staff. Additionally, since employees could speak to me during their working shift, it would not impact upon their pay or take time away from their breaks.

However, it is important to note that by arranging my interviews in this way, it meant that the manager chose some of the people who were involved. When he phoned other managers and supervisors across the city, he asked them to "*send someone along*" and asked for people "*with a bit of common sense.*" It is possible that the participants were those who he thought would not be too negative about their job or the council, or those who he thought were more articulate. He also made a point of telling the other managers that the research had clearance from the 'Head of the Parks Department'. Whilst this may have been to formalise the research process, it may also have implied that their co-operation with the study was obligatory.

### ***Gaining Informed Consent***

On the pre-arranged dates, I visited the park depots to meet potential participants. At this stage, since the men had effectively been sent by their managers to talk to me, I did not have their informed consent to participate. I gave them an information sheet describing the research and allowed them time to read it and ask any questions. It was important that I emphasised the fact

that participation in the study was voluntary and they were given the opportunity to decline to take part. If they agreed to take part in the research then they were asked to complete a consent form. The information sheet and consent form used can be seen in Appendices R and S. Eight potential participants had been recruited by the depot manager, and six of these were interviewed. One employee did not want to take part and one was unavailable on the day of research.

One of the participants was not employed by GCC and was recruited through GHA via a snowballing technique. He was given contact details and a brief description of the research from another GHA employee as they thought that he would be interested in the whole research project. After an informal discussion at the MRC SPHSU, he was given the information and consent sheets and asked if he would like to return for an interview.

### ***Conducting the Interviews***

In total, seven semi-structured interviews were conducted with men responsible for the provision and maintenance of outdoor play areas in Glasgow in August and September 2006. Three participants were play area maintenance operators (John, Brian and Alex), two were play area maintenance supervisors (Dave and Craig), and two were in professional or managerial roles (Eddie and Mike).

Six were conducted at park depots in Glasgow and one was conducted at the MRC SPHSU. A brief topic guide was used throughout all interviews (Appendix Q), but I remained flexible enough to allow participants to discuss other issues relevant to play provision in Glasgow, e.g. aspects of GCC's working practices. Interviews lasted between 30 and 60 minutes and were recorded onto cassette tape.

The topic guide covered questions on the reasons for play provision; the quality of play provision; aspects of good and bad play provision; their experiences of misuse of play areas and the public perceptions of play areas. I tried to remain objective during the interviews and to limit my verbal responses and body language cues between questions in order that I did not overtly influence their responses. However, I understood that true detachment from the research is



not possible and that the data generated were the product of both parties involved in the interview.

I transcribed all interviews verbatim and pseudonyms were assigned immediately, in order to render the transcripts anonymous. I tried to write field notes after each interview about particular aspects of the interview that might not be recorded on tape; such as body language or my thoughts about the interviewees' responses, however, there was often only a few minutes between the interviews and so the field notes collected were not substantial.

### **5.3.2.2 Parents**

Attempts were made to recruit parents to take part in a focus group from two schools at the same time as the recruitment of children was carried out (described in Chapter 5). Recruitment packs, containing a cover letter, information sheets about the study and consent sheets were sent to all 30 children in Primary Six (P6) at a school within a neighbourhood in the most deprived quintile of SIMDgla and to all 50 P6 pupils at a school within the least deprived quintile of SIMDgla. The contents of the recruitment pack contained information on both the research with children and the research with parents and can be seen in Appendices K to O.

Five parents from the school in the deprived area originally agreed to take part in the research and through the school, letters were sent to each parent asking them to return, in the provided stamped addressed envelope, their contact details and to indicate what times of day they would free to take part in a group discussion. A convenient time to hold the 'focus group' was arranged by telephoning the three participants who returned their details. Although I phoned participants the day before to confirm their availability, on the day of the arranged 'focus group', only two parents showed up. For this reason, the discussion is referred to as a 'paired interview' in the rest of the chapter.

The paired interview was conducted in November 2006 in a meeting room at their children's school. The two participants were both mothers of girls attending P6 and they appeared to be friends. They were both in their late thirties and Mary was a married mother of three children, who worked part-time and Jenny was a lone parent with one daughter who was unemployed due to ill

health. Before the paired interview began, they were reminded that participation was voluntary; that pseudonyms would be used; and that their identities would not be revealed. Additionally I reminded them that I was interested in their opinions and experiences and that there were no correct or incorrect answers.

The topic guide for the paired interview covered general questions about play and how often their children played as well as opinions on local provision and barriers to visiting them (Appendix P). During the paired interview, I followed this topic guide, and probed where necessary or when participants did not understand the question. I also asked the mothers for their opinions on some photographs of play areas, as had been used with the children. These photographs were used as a prompt for discussion. In total, the paired interview lasted approximately 40 minutes. After the interview, I transcribed the interview in full and used pseudonyms in order to preserve their identities.

Letters were also sent to parents of 50 children attending P6 at a school within the least deprived quintile of SIMDgla, but no focus groups were held. Three parents returned the consent forms indicating their willingness to be involved in the research and they were sent letters, via their child's school, asking for their contact details and availability. Unfortunately, due to the timing of this research, parents and teachers were very busy in the run up to Christmas 2006 and as such it was not possible to arrange a suitable time to hold the focus group. Additionally, whilst the school had initially agreed that I could hold the focus groups within a class room or hall, they were reluctant to agree to this when it came to arranging the focus groups. I sent a further two letters and left telephone messages for the head teacher to rearrange the rest of the fieldwork for January 2007, but was unsuccessful. Since this element of the research was exploratory and part of a larger project, I decided that the time and effort required to recruit another school was not worth it for the limited data that I could gather.

### **5.3.2.3 Fieldworkers**

Whilst there was no explicit research conducted to explore the fieldworkers' views on the provision of play areas in Glasgow, a de-briefing meeting was held at the end of the quality audit fieldwork in May 2006 proved to be an

opportunistic method of gaining their personal opinions on the provision (described in chapter 4). This meeting was not tape recorded and fieldworkers were not asked to complete consent sheets, although they understood that I was taking brief notes. Field notes were taken in order to highlight any improvements that they thought could be made to the research tool, but fieldworkers also shared their own opinions and views on play areas. For these reasons any results obtained from this discussion are from field notes and minutes that were written up at the time of the meeting and no direct quotes are used.

Although the aim of the meeting was to seek their opinions on the quality audit, two of the fieldworkers had young children and as such talked about their experiences and views of the play provision from a parental perspective as well as that of a fieldworker.

### **5.3.3 Analysis**

#### **5.3.3.1 Analysis of interviews with maintenance men**

Prior to analysis, all transcripts were imported in NVivo Version 2, which is software that can be used to help to organise thematic coding of qualitative research. After interviews were completed, a simple coding framework was created which was based on the topic guide. However, at the beginning of the analysis process, the interviews were coded at a very basic level; coding the transcripts quite specifically although not verbatim e.g. graffiti, lack of policing etc using 'free nodes'. Free nodes in NVivo are simple themes without any attachments or sub-themes. At this stage of analysis, I did not really use the coding framework that I had developed from my interview topic guide, but was more interested in reporting what the interviewees actually said. At the end of this process, I had an idea in my head about how some of the themes may fit together, but the large numbers of free nodes and the overlapping and interlinking nature of them meant that I could not really visualise their relationship and I did not see how I could report my results. At this point, I needed to take a step back and returned to look at my interview topic guide, coding framework and the aims and objectives of the research. From looking at these and from my knowledge of the transcripts, I was able to create a more

detailed coding framework, which I used to re-code the data. In the second round of coding, I used the tree-node functions in NVivo which meant that I was able to structure the coding a lot more effectively. It also meant that where certain themes (e.g. different types of areas) occurred in more than one area of interest (e.g. misuse, provision, public perceptions etc) I was able to code for this at each level. Although there was still repetition, as is the nature of qualitative research, there was an interwoven set of ideas. During this coding process, I chose the overall theme that each sub theme went into and then from this, worked out the a set of sub themes beneath each main theme. In the final round of coding I looked through each theme and its sub themes and checked for any other areas of interest that the responses may fit into.

### **5.3.3.2 Analysis of discussions with parents and fieldworkers**

The paired interview conducted with mothers of pupils attending a school in a deprived area of Glasgow was transcribed verbatim and pseudonyms were assigned immediately. Since there was only one transcript, it was not analysed in Nvivo and instead I wrote notes in the margin about general themes and issues that the parents mentioned. In essence the main points of the paired interview were summarised.

The field notes from the meeting with fieldworkers were not analysed specifically, but issues relating to their views as parents were highlighted for examination with the other parental perspectives. Since the issues that these parents talked about were similar to those of the maintenance men and parents from the deprived area, the field notes were summarised by hand for general themes.

This was very much exploratory work and had more data been collected from parents, then deeper analysis would have been possible and perhaps a greater understanding of issues relating to parents' perceptions would have been generated. It may also have been possible to compare views of those living in a deprived area of Glasgow to those living in a less deprived area.

## **5.4 Results**

Since most of this research is from the perspective of the men who maintain play areas, it dominates this results section. The results from a parental perspective are discussed in the second section, which includes data obtained from the paired interview with two mothers, field notes from a meeting with fieldworkers and views from those maintenance men who were fathers.

### ***5.4.1 Maintenance Men's Views***

The main themes that were discussed throughout the interviews concentrated around the provision and quality of play areas in Glasgow, including a major focus on the misuse of play areas. Other issues relating to public perceptions of play areas, safety and youths were also topics raised by participants. Within each of these themes, there were recurring ideas about different types of areas in Glasgow and different types of people living in such neighbourhoods. Issues related to youth disorder were also a strong feature of the interviews. The results will be discussed in detail around five main themes.

#### **5.4.1.1 Provision of Play Areas in Glasgow**

After initial introductions, the interview began by asking the men why they thought that Glasgow City Council provided play areas for the residents of Glasgow and whether they thought that the facilities were suitable for those purposes. Most of the respondents agreed that play areas were a positive aspect of a community and that facilities were gradually improving with regeneration. Whether provision varied across the city and whether facilities had changed in any way were also discussed.

#### ***Reasons for the Provision of Play Areas***

The interviews all began by asking participants for their thoughts as to why Glasgow City Council provided play areas. This helped to set an agenda for the interview and helped me to understand on what levels they might judge the quality of the provision. It only formed a small part of the interview as participants appeared to think that it was quite a simple question with obvious

answers. For example Dave, a supervisor of play area maintenance workers answered; *“Obviously for the kids to play on,”* before going on to discuss some of the aspects of misuse. He later added that he thought that play areas provided a safe environment for children to play in:

*“Basically it’s for the kids to go out and play in a safe environment, hopefully.”*

Dave - Play Area Maintenance Supervisor

Although, safety was a recurring theme throughout all participants’ interviews, only Dave mentioned it as the reason for providing play areas for children. This may be because participants felt that it was too obvious an answer and did not consider it important enough to mention. However, some respondents also noted that some play areas may not be safe venues for children to play in. Brian, a play area maintenance operator, suggested that he would not want to take his children to some of the play areas he maintained:

*“In some of the places I’ve got are rough areas that you wouldn’t take your kids in them. If you’d young ones or that.”*

Brian - Play Area Maintenance Operator

It might have been useful had the question been re-introduced at a later point in the interview, when participants mentioned particular aspects of good or bad play areas. Most participants responded that play areas were somewhere to go, or provided something to do for children and parents.

*“They see it as something for their child to do in it. For their weans to play there for a wee while and keeps them busy.”*

Alex - Play Area Maintenance Operator

\* \* \*

*“For healthy activities for the kids, to get out and play and somewhere to take your kid when you’ve got them”*

Craig - Play Area Maintenance Supervisor

Respondents did not always elaborate as to what activities they thought that children might engage in, but being physically active, learning and socialising were mentioned by some participants.

*“keeps them fit and gets them away from their computers, but it’s to get them outdoors, get them exercising, running about, a different variety of equipment, exercising differently.”*

Mike - Managerial Staff

\* \* \*

*“Well it’s to get the young ones to learn to do things. To play, learn how to play, playing with other kids and it gives them something to do as well in the swing parks.”*

Alex - Play Area Maintenance Operator

Although, all except one of the participants mentioned the opportunity to play at a play area as one of the reasons for the provision, only one of the participants specifically mentioned “*exercising*”. One participant talked about “*healthy activities*” and another said “*recreation*”, both of which could be deemed to be physically active. Others may not have specifically mentioned being physically active as a positive point, but they mentioned “*things to do*” or “*playing*”. Whilst these activities may not necessarily be physically active, they may still be beneficial to children’s social and emotional health and wellbeing. Although participants were not questioned about the benefits of play, they spoke about it in a positive manner. On a similar note, one participant felt that play areas were a benefit to the community in general and mentioned that there was a demand for play areas by tenants of Glasgow Housing Association (GHA). He also added play areas had always been provided in Glasgow.

*“In the communities that GHA serve there’s a huge demand for play areas from them. They’re really the driving forces behind getting play areas in. They’ll go to the LHOs [local housing officers], they’ll go to the GHA, and they’ll ask and in some cases, maybe even demand, that they want play areas in.”*

Eddie - Managerial Staff

\* \* \*

*“Nah I just think it’s a vital part of the community. If you want to have thriving communities then part of a thriving community is having children in it as well, in areas where you would want to bring up children.”*

Eddie - Managerial Staff

\* \* \*

*“It’s for the education and the recreation of children. There’s always been play areas throughout Glasgow.”*

Eddie - Managerial Staff

The latter issue is an interesting point as it may suggest that perhaps the benefits of the provision of outdoor play facilities may not be considered as they are simply something that has always been available for children to use and may be expected by the public.

One participant did not see the benefits of outdoor play provision as he did not believe that the quality in Glasgow enabled children to make safe and healthy use of the facilities. Brian was very negative about the provision, his employer, and his job throughout the interview. Clearly his feelings and job morale may have influenced his thoughts about the play areas and vice-versa. Despite his overall negativity, he was not alone in suggesting that children may not be able to visit play areas due to misuse by others. In fact most participants did not require prompting or questions to begin talking about aspects of misuse in play areas:

*“Chloé: I’m interested in the play provision in Glasgow. Can I ask you, in your opinion, why you think the council provide play parks?*

*Brian: Well, staying about here it’s tae gie the bigger ones somewhere to drink.”*

Brian - Play Area Maintenance Operator



When probed as to what benefits he thought children might get from using play areas, he said that he could not see any benefits:

*“Brian: I dunno. As I say I don’t see many benefits kids are getting from some of the areas I’ve got”*

Brian - Play Area Maintenance Operator

It must be noted that all participants were employed to maintain play areas and so they would be more aware of any problems that occurred within them. It is unclear whether this would have a sensitizing or de-sensitizing effect when asked about the types and levels of misuse; however the fact that all participants spoke about problems without being prompted suggests that they are not de-sensitized.

Overall, participants felt that play area provision should be a positive facility in a community. Play areas were considered as a facility to help to provide children and parents with recreational pursuits. However all participants quickly moved on from the benefits to explaining why the positive outcomes of outdoor play may not be accessible to all children.

### ***Target Audience***

Maintenance men felt that there was a need to match the play areas provided to the needs of the community. They felt that most play areas were designed for younger children, but that recent projects had been targeted towards older children and teenagers. Some felt that play areas were targeted towards different groups of people in the city.

### ***Age of Users***

Generally participants understood play areas to be designed for children. The age of users varied depending upon the type of provision as would be expected e.g. toddler play areas should be used by preschool children, traditional swing parks and more adventurous style of play areas or Multi-Purpose Games Courts (MPGCs) were designed for older children and teenagers.

*“A mixture, really. I mean we do have the specific toddler play areas and we do have the other multi units, climbing frames etc for the bigger kids and then as I said multi games courts. I know they are targeted at everyone in general but in general they are used by teenage boys for the football.”*

Mike - Managerial Staff

\* \* \*

*“I’d say mainly the play areas are getting built for the under tens or under twelves.”*

Eddie - Managerial Staff

\* \* \*

*“I think between 3 and 12 year olds, but I wouldn’t say they actually chance to play on the most of it. Because as I just said because of the teenagers.”*

John - Play Area Maintenance Operator

One maintenance man talked about how the ages of users increased throughout the day, from pre-school children with parents in the morning through school-aged children in the afternoon and then teenagers hanging around and drinking at night.

*“The age group that use it during the day would be under fives when the rest are all at school and then as the school comes out you’ve got the fives and overs and then at night time you’ve got teenagers and sometimes you’ve actually got adults as well. They’re sitting in it. They’re actually using it for drinking later on in the evening.”*

Alex - Play Area Maintenance Operator

Some participants talked about a gap in the provision for teenage girls. They suggested that older boys may use the MPGCs to play football or basketball, but the girls did not. This is an important point since the physical activity levels of teenage girls is a target area of Scotland's Physical Activity Strategy (Physical Activity Task Force, 2003). Participants did not know what kind of facilities girls

of this age would like, but suggested that consultation with them may be needed in order to provide suitable facilities.

*“For young female adults, or whatever you want to call them, I don’t see there being anything, I really don’t. There’s a gap.”*

Mike - Managerial Staff

\* \* \*

*“Chloé: Boys and girls do you think?*

*Eddie: boys and girls, yeah. Good point there I suppose, simply because you could play football in them or maybe basketball games like that, it probably will attract boys more than it will girls. I hope not. I don’t think it’s very often you see a bunch of girls playing netball or something on a games court, no. So aye it probably would be boys, good point. But what would you put out for the girls?*

*Chloé: That’s just it. What would you suggest?*

*Eddie: I dunno. I don’t know. You’d need to ask the girls.”*

### ***Targeting Specific Areas or Groups of People***

John talked about play areas being specifically for children in deprived areas. Since there are more play areas in areas of high social deprivation in Glasgow, this may suggest that perhaps greater provision in these areas may have been a conscious decision of planning officials or more funding may have been available for deprived communities.

*“I think it’s just to keep kids occupied and it’s so that deprived areas to gae them things to do and ‘hings like that. Try to take them off the street.”*

John - Play Area Maintenance Operator

Although John acknowledged a greater need for play provision in communities living in high social deprivation, he did not speak positively of some of the people living in these areas. He pointed out that certain groups of society would

not appreciate any type of provision and would continue to mistreat it, despite refurbishment. This was also echoed by Eddie. This may make providing suitable facilities for children and youths difficult, even with consultation, however Eddie did state that he thought that these types of youths were in the minority and that most teenagers were not “bad”.

*“But sometimes they can spend as much as they want and they don’t really get help off the local people, if you know what I mean? If they put a good play equipment in they’ll abuse it. If you understand? They’ll just wreck it, if you know what I mean? Like, if it’s in nice areas, the kids can enjoy it, but in other places they try to do them up their best and the kids don’t appreciate what they’re getting.”*

John - Play Area Maintenance Operator

\* \* \*

*“It doesn’t appeal to every kid out there and there’s a certain element out there that nothing’ll appeal to them. You could give them absolutely everything [...] but the vast majority of kids that do hang about aren’t doing any harm at all. But people’s perception - that is different.”*

Eddie - Managerial Staff

Another participant felt that play areas were provided to certain groups of society and that others were overlooked when it came to investing in facilities. Brian felt that a recent regeneration project had been implemented specifically for recent immigrants who had moved to the area. He seemed angered that there had been no previous attempts to invest in the facility and felt that other communities without an immigrant population were not receiving similar upgrades.

*“Like I said, they built that one in Nithsdale [pseudonym - deprived area], I’ve never seen it a woman with a white kid in it yet...They do it and they think about it once it starts getting wrecked. They’ve just spent £50,000 on Nithsdale Square. I’ve done it for maybe 6 years. It never gets used and all they’re worried about is the immigrants that’s using it. So I say that’s fair enough, I’ve stayed here 20 odd year ago and it’s never been done up and the only reason it gets done up is cos the*

*immigrants have moved into this area [...] this guy put it to me[...] he's like on the tenants association. He says, 'this is great this play area, the immigrants are using it'. I said, 'that's good, but what about the people that stayed here before that never got using it because it's a bad area?'"*

Brian - Play Area Maintenance Operator

### ***Differing Needs***

Targeting play areas to certain groups of society may mean that different levels of need for provision are acknowledged by planners. Several commented that the provision should be targeted towards the population's specific needs in order to increase safe and healthy use and decrease misuse and vandalism.

*"Chloé: ok and do you think that different people and different areas of the city have different sort of needs?*

*Alex: We've got the likes of skateboards where they like skateboard swing parks and then in the other areas just for under fives, just toddler ones. So I would say that different bits have different needs, aye."*

Alex - Play Area Maintenance Operator

\* \* \*

*"Cos the skateboard park's for teenagers so they're looking after it, rather than wrecking it. And the fitba parks they're looking after them as well. They've no wrecked it yet."*

John - Play Area Maintenance Operator

\* \* \*

*"A lot of the stuff's no' ideal either. I don't think there's enough consulting with the people in the area, what they need: the actual need."*

Dave - Play Area Maintenance Supervisor

Finally, an important point was made by Eddie when talking about demands for play provision and regeneration projects:

*“I don’t think it’s number one priority. It’s certainly... it’s always considered and probably on every occasion a play area or some sort of recreational ground is built in. But I don’t think it’s, I couldn’t even guess where it would come in the priorities but it’s not number one or two or anything like that, unfortunately. But then, I think that the residents and the tenants of GHA, they would all rather have their central heating and their double glazing in before a play area anyway. It would come down their list of priorities as well, without a doubt.”*

Eddie - Managerial Staff

Thus although he felt that although play areas were a “*vital part of the community*”, he did not think they were the highest priority and nor did he believe they should they be. This may mean that if there are not ring-fenced funds for play provision, then deprived communities may lose out on new play facilities since funding may be required for other, higher priority, regeneration projects.

### ***Quality of provision***

In general participants felt that the quality of the outdoor play provision in Glasgow was “*fine*” or “*getting there*”. Some felt that play provision was improving, while others thought that misuse was getting worse and that it was becoming harder to maintain areas. Most participants felt that overall the quality of the provision was fair.

*“I think it’s improving. I do think it’s improving...the varieties of equipment are significantly better than they used to be. There’s a multitude of different things... I think in general, aye there is a good provision.”*

Mike -Managerial Staff

\* \* \*

*“I think they provide a good service with the play areas... A lot of the stuff is being updated just now.”*

Dave - Play Area Maintenance Supervisor

\* \* \*

*“Eh, we do provide a lot of good play areas in Glasgow...I think the play areas are fine. I think we’re getting some really nice play areas and slowly but surely the whole of Glasgow’s getting brand new ones built.”*

Craig - Play Area Maintenance Supervisor

\* \* \*

*“It’s pretty good, yeah. Very modern, quite up to date.”*

Alex - Play Area Maintenance Operator

It must be noted, however, that this question was answered near to the beginning of the interview and that, in general, the more senior the employee, the more positively they spoke of the quality of provision. Whilst Brian declared that he could see no benefits that children could get from some of the play areas he maintained, John, another maintenance operator, spoke very quickly about problems with play areas. It is difficult to know whether they would want to create a good impression of the play facilities or whether or not employees working ‘on the ground’, maintaining play areas every day, would be influenced by their own job satisfaction or whether they would be able to give a more knowledgeable account of the quality of the provision. Nevertheless, all participants felt that facilities could be improved.

*“Chloé: And do you think that the provision in Glasgow meets that purpose?”*

*John: Well, in certain areas, aye. But sometimes they can spend as much as they want and it’s... and they don’t really get help off the local people.”*

John - Play Area Maintenance Operator

### ***Has the Quality of Provision Improved?***

The majority of participants felt that the provision was improving with investment and regeneration. Phrases like *“getting there”* were used to describe the quality on a number of occasions. However, Brian was again negative about the changes in the provision. He commented that although there

have been refurbishments to some play areas, the overall quality remained poor. Later in the interview he commented about the council's investment in new play areas: *"I don't think they think about what they're putting in these areas."* He suggested that regeneration of a play area may make misuse worse since it may provide a location for youths to congregate:

*Brian: I don't think they take any notice of what the area is and how bad it is and they just think "spend that on it, gie them that, that solves it, that's the solution" Which, me watching it for 7 year or whatever, doesny always help, sometimes makes it worse.*

*Chloé: Why do you think that?*

*Brian: Cos if there's somewhere there that's no' had swings for years and then they go and put new swings in or whatever then it's just somewhere for the older ones to go and arrange to hang about."*

Brian - Play Area Maintenance Operator

### ***Quality of Provision in Different Areas***

Some participants felt that there were differences in the quality of provision in different areas of the city. Some specifically commented on differences between the East and the West of the city and believed that the more affluent West of the city had a larger budget for play provision than the more deprived East end. Alex believed that, along with land availability, different budgets in different areas may influence the type of provision.

*"Alex: I would say there's some have got bigger swing parks than what we've got [in the East of Glasgow]. Over here in the West [of Glasgow], I've noticed they're larger and the East they're sorta smaller and they seem to be near schools and that....*

*Chloé: Why do you think the differences in the size and situation of the playgrounds exists?*

*Alex: Well it's probably down to what spare ground they've got and plus the money, they'll take it out of the budget. Whatever budget the East has got and the West has got. They'll take it out of it. Probably one will be larger than the other- the budgets...*

*Chloé: so you think that the ones in the West have more money to spend on bigger play areas?*



*Alex: well that's my opinion anyway"*

Alex - Play Area Maintenance Operator

John understood that children living in deprived areas have a greater need for access to free outdoor play facilities, but later in the interview suggested that he believed that the quality of such provision was poorer and that investment was lower in deprived areas.

*"Chloé: what kind of areas of the cities do think they're [play areas] best? Or that need the play areas most?*

*John: I think the wealthier part o' the city get more money spent on them. For the simple reason because they're no' getting abused.*

*Chloé: Do different areas get different investment?*

*John: oh definitely! I'd say the West end gets the more investment than bloody Drumchapel."*

*[later in the interview]*

*Chloé: Do you think there are huge differences between areas then?*

*John: och aye...without a shadow of a doubt. You should take a drive round in your car and have a look [...]and look at the play areas and you'll go 'I see what that guy was on about noo' and you'll know in about 10 seconds what I'm talking about... and don't leave your radio in the motor when you get oot."*

John - Play Area Maintenance Operator

Although it is not clear whether different areas of the city do get different funding, it may be that play areas in deprived communities suffer more vandalism and so are of a lower quality.

*"I think before, in certain areas they didn't last as long. Again, I'm talking about, what you would call deprived areas. There tends to be more vandalism there and more crime which leads to the kids not using these areas whereas in what you could call better off areas, they do get more used or used more and they last longer."*

Eddie - Managerial Staff

Some participants commented that some of the play areas that they maintained were not of a suitable standard for children's use. This was mainly for safety

reasons, although Brian also commented that in some play areas all of the equipment was removed in order to make the area safe after vandalism. Thus, the 'facility' was merely safety surfacing with gaps where equipment used to be.

*"You wouldny let your kids oot to play here cos it's no for them"*

John - Play Area Maintenance Operator

\* \* \*

*"Some of the things you find in them, I wouldny want my kids gan in it."*

Brian - Play Area Maintenance Operator

\* \* \*

*"But a lot of our areas are still a lot of equipment in them that's not up to date, especially in the East end. We've still got play areas like that, where it might be a tarmac surface and it's not a safety surface and things like that in it, you know. A lot of the stuff's no' ideal either"*

Dave - Play Area Maintenance Supervisor

\* \* \*

*"Well some play parks on my run, there's nae equipment in them as such to keep weans on. There's been equipment there but once it's broken or damaged it's either removed and no' replaced or just left the way it is."*

Brian - Play Area Maintenance Operator

Despite the higher crime rates in certain areas of high deprivation, Eddie commented that he did not think that GCC would actively avoid investment in deprived areas simply because of vandalism.

*“They don’t go to one area and say, ‘right we can’t put this in here’ or ‘we must put this in this area’ it’s all very much the same, right across the city of the ones I’ve been involved in certainly. I haven’t come across any difference where they’ve said in what you might call a deprived area we must put something different in or something additional. It tends to be the same all round.”*

Eddie - Managerial Staff

#### **5.4.1.2 Misuse within play areas**

Misuse of play areas was considered to be a big problem by all of the men. As with the previous theme, the issues of different types of neighbourhoods and different types of people recurred within aspects of misuse. The main types of misuse mentioned were those concerning vandalism, underage alcohol consumption and youth disorder. There was speculation over the reasons for misuse although no general consensus on how to solve the problem.

##### ***Types of Misuse***

Dogs and/or their owners were considered to be a problem by two of the participants, due to dog fouling and dogs chewing equipment. One participant noted that some owners lifted their dogs over fences or opened gates to allow them into play areas and that some used the plastic swing seats as toys with their pets, encouraging them to chase and chew the seats. Alex noted that:

*“and the dog walkers they just let their dogs go in and do the toilet anywhere [...] and then you get the dog walker that’ll come in with the sorta terrier kinda dogs and they’ll wrap the swing up once or twice and then they’ll have the dog going up and grappling the seat and it swings on the seat and it rips it apart. You get quite a lot of that.”*

Alex - Play Area Maintenance Operator

Litter was also considered to be a problem by most participants and Mike, a manager, described it as *“a huge problem in play areas.”* Clearing up litter was mentioned by participants as part of their every day routine, in fact one participant noted his job title as *“de-litterer”* and one supervisor talked about litter as a sign of high use, rather than an aspect of misuse:

*“You can tell by the amount of litter that’s lying each day that it’s definitely well used.”*

Dave - Play Area Maintenance Supervisor

Much of the litter mentioned was alcohol related detritus including broken glass, cans and bottles. As with the other types of misuse, this was blamed on young people who used the play areas at night. John blamed anti social behaviour and underage drinking for the volume of litter that he had to clean up:

*“I can spend a whole Monday brushing up smashed bottles. Buckfast - see the minute they make that a plastic bottle my life’s gonna be fantastic [...] And cider, forever picking up cider bottles, plastic bottles. But that’s a problem that all goes down to antisocial behaviour and teenagers [...] Cos it’s no’ adults you’re gonna get drinking in play areas, at the end of the day.”*

John - Play Area Maintenance Operator

As mentioned in relation to the reasons that the council provide play areas, Brian, a maintenance operator, felt that underage drinking was such a problem that in response to the initial question, *“Why you think the council provide play parks?”*; he responded that, *“Staying about here it’s tae gie the bigger ones somewhere to drink.”*

In contrast with the problem of underage drinking and the associated litter, drug use was not seen to be as much of a problem. Most participants said that whilst in the past they had found needles in the play areas, this had become less frequent with phrases like *“noo and again”*, *“occasionally”* and *“the odd needle”* being used to describe the situation. However, most participants seemed not to consider the smoking of cannabis as a drug problem in contrast to injectable drugs, and only mentioned after they stated that drug use was not a

problem. This might be because of the potential harm of needles left in play areas is greater than the unsightly appearance of cigarette papers.

*“In general it’s alcohol, not really drugs. We don’t find a lot of needles and things like that in play areas. They smoke the ‘wacci bacci’ and drinking. There’s a lot of cigarette ends from joints or whatever but nah in general, not that I’m aware of anyway, we don’t find a lot of needles.”*

Mike - Managerial Staff

The other problems associated with young people or teenagers seemed to stem from them using the area at night to congregate. According to the participants, it was these teenagers who were responsible for the vandalism and damage to equipment.

*“It’s all down to teenagers. They wanna keep these teenagers ooota these play parks if they’re gonna spend a lot o’ money.”*

John - Play Area Maintenance Operator

The term “gang” was used by participants both when describing groups of youths (mostly boys) hanging around as well as to mention specific, named gangs, potentially associated with more criminal behaviour. It is unclear when some participants talked about “gangs”, whether were referring to this collective term or the latter more delinquent sub-culture. Nevertheless, they spoke about “gangs”, “teenagers” and “youths” in a negative manner. In terms of gang culture and criminal behaviour, participants mentioned that play areas and parks were used as meeting points for gang fights or were subject to territorial behaviours of rival gangs.

*“An issue, in the likes of this district is Elder Park where you have the ‘Crossy Posse’ who inherit, sorta own one end of the park and the ‘Linthouse Tongs’ or whatever they’re called at the other end. So if we build a play area at one end of the park, the other gang will come in and burn it. Just burn it, just wipe it out. And it’s this constant territorial thing and that goes on in Pollock. So you get people from, the gangs from one side of the river will cross over to the other side of the river*

*and smash up the play area and it's a territorial gang thing."*

Mike - Managerial Staff

As well as fighting and destroying play areas, the maintenance men disapproved of youths using the play area to hang around. They objected to them being in play areas, since they blamed them for vandalism and thought them intimidating to other users. Some noted that older youths bullied younger children who wanted to use the play area

*"Chloé: And, what's the main problem that can turn a play area into a bad one?*

*Dave: Youths. Gangs sitting there drinking. They don't have to be sitting drinking. Just gan in an' just making a nuisance. No' letting the younger ones having a shot on anything. They'll maybe sit on the roundabout and some of the kids'll want to use it and they'll no' move."*

Dave - Play Area Maintenance Supervisor

\* \* \*

*"There is kids go in them, but as soon as these big yins appear they're either chased away [...] I've seen big ones turning up in these wee areas kicking a ball so hard that it could hurt a kid, take them right off their feet."*

Brian - Play Area Maintenance Operator

Vandalism included setting fire to play areas, damaging equipment or safety surfacing and graffiti. Participants found it easy to list various different types of misuse, which may indicate that it was widespread.

*"It's mostly ripping the safety surface, the new carpets. Sitting there with their knives ripping it and things like that, you know. Again, loosening nuts and bolts, [...] setting the equipment on fire, set the rubber seats on fire of the swings. They'll gouge bits out the rubber out the seats with their knives. Obviously, the spray painting and stuff like that - the usual. Ripping anything as I say, ripping the carpet wi' knives. Anythin' they can do, they'll try and break it."*

Dave - Play Area Maintenance Supervisor

### ***Levels of Misuse***

Almost all participants reported that there were high levels of misuse within the play areas. Some types of misuse were so frequent that they were regarded as ‘the norm’ and participants used words such as “*obviously*” or “*the usual*” when talking about graffiti:

*“Well obviously there’s always graffiti. It’s everywhere.”*

Alex - Play Area Maintenance Operator

I had to probe one participant as to whether graffiti was a problem after he had mentioned more serious forms of vandalism. Despite needing to be probed to mention graffiti, he said it was present everywhere. This may suggest that it is an expected feature of play areas in Glasgow and that Dave may have been desensitized to the presence of graffiti or that he did not consider it to be a problem.

*Chloé: “Do you find a lot of graffiti as well as wrecked equipment?”*

*Dave: “Yeah, it’s everywhere. Probably nearly every play area that we’ve got [contains graffiti].”*

Dave - Play Area Maintenance Supervisor

He later indicated that he did not think that graffiti would put off potential visitors since there were no other facilities to which parents could take their children in a lot of neighbourhoods:

*“It’s no’ nice to look at, you know, but whether it puts them off, I don’t know. With them, it’s somewhere for them to go and play you know. Cos a lot of areas haveny got anything for the kids, so I wouldny think it would put them off.”*

Dave - Play Area Maintenance Supervisor

Levels of misuse were so high that some participants expected that new equipment would not last long before it was vandalised:

*“And it’s no’ gonna last either. It’s gonna get wrecked, eventually it’ll get wrecked or somebody’ll... it’ll get burnt to the grund. Something’ll*

*happen to it.”*

John - Play Area Maintenance Operator

This expectation might mean that maintenance workers would have low morale and a low priority for maintaining play areas as they might see it as a waste of time and energy. In fact some participants noted that introducing new play areas was a “waste of time” since it would get vandalised:

*“[you’re] wasting your time wi’ a lot of places. A lot of places, they could be nice, you know, but they don’t bother with it so I don’t see why I should.”*

Brian - Play Area Maintenance Operator

Additionally it might mean that if vandalism, graffiti and litter are seen as the norm, then that may in itself attract more misuse in the play areas. This theory is in line with the “broken windows effect” (Wilson & Kelling, 1982) and was summarised well by Eddie when he was talking about the importance that simple maintenance can have on the quality of provision. Alex also mentioned that he thought that people left litter and vandalised the play areas as they always saw them in an untidy state, which left the impression that it is the norm to treat play areas in that way:

*“It’s important to maintain these things. Cut the grass if there’s any, keep the fences painted, keep the equipment in good working order and just generally maintain it. If something falls into a state of disrepair it attracts the wrong type of people. They think it’s an area where nobody bothers about anything, nobody’ll report this to the police, nobody’ll challenge me, nobody’ll move me on, so they tend to hang about these areas. Whereas if you keep a place nice, you keep it litter free and well maintained, then people get the impression, the psychological impression, well people care about this and if I do anything, even just hang about it, I will get challenged, I’ll get moved on.”*

Eddie - Managerial Staff



*“Cos they probably see it in a mess. They don’t see it when it’s tidy. They’ll see it when the drinkers are there, when the glass is broke. They don’t see it when it’s all been all tidied. So they think ‘they’re doing it so I’ll do it’ sorta thing.”*

Alex - Play Area Maintenance Operator

### ***Misuse in Different Neighbourhoods***

In general, participants thought that there was some element of misuse in all play areas across Glasgow. However some participants believed or expected that the levels of misuse would be less in more affluent neighbourhoods and cited one of the reasons for misuse as the types of areas or types of people living within those areas. Similarly to graffiti, litter was considered to be a problem that was not restricted to deprived areas as was summed up succinctly by Mike:

*“That’s [litter] everywhere [...] It doesn’t matter how affluent the people are there’s still the effluence flung at their backsides.”*

Mike - Managerial Staff

When participants were asked whether misuse and vandalism could be found across the city, most agreed. However despite stating that misuse, vandalism and evidence of drug use would be found across the city, Dave then later suggested that the situation would be better in the more affluent West End. The ‘West End’ was mentioned frequently throughout the interviews and referred to as a special case, unlike the rest of Glasgow. It might be because the men knew that I was from Glasgow University which is based in the West End, they felt the need to tell me that the rest of Glasgow had worse provision or higher levels of misuse. Additionally, all of the interviews with the maintenance men were conducted in the west of the city and since some of the participants did not work in that area, the location may have alerted them to the differences in the city’s provision.

*“I don’t know what like it [vandalism] is up this way - the West end or that - if it’s any better.”*

Dave - Play Area Maintenance Supervisor

*“Come over to the west here and it’s [levels of misuse and vandalism] totally different. But it’s night and day. O’er the west here than it is to the east end an’ that you know.”*

Dave - Play Area Maintenance Supervisor

### ***Reasons for misuse and how to combat it***

The maintenance men suggested reasons for misuse and vandalism of play areas, and most indicated that they thought it was because of certain groups of people who lived in particular areas; generally those who were unemployed or in receipt of benefits, living in deprived neighbourhoods. Whilst the men suggested that it was teenagers who vandalised the play areas, they implied that the underlying reasons were down to parents and that a certain ‘*culture*’ or ‘*mentality*’ was being passed onto children. The participants suggested some ideas to combat the misuse, but most said they were not sure how it could be reduced, and some felt that it may be impossible to eradicate it altogether as it was ingrained in Glasgow ‘*culture*’ or was due to the ‘*mentality*’ of people living there.

**Chloé:** What is it do you think that makes the bad ones bad?

**Brian:** *Well a wee woman said to me the other day, ‘it’s not the weans it’s their parents.’ A lot of the places I go it’s single mothers, junkies, alcoholics... You find bad areas are always bad areas: people that don’t want to work, don’t want to keep the place tidy, know?*

Brian - Play Area Maintenance Operator

John spoke in depth about how most of the problems were caused by those living in deprived areas. He said that misuse is due to “*the area and the people that live in the area*” and adds that it is “*where they live and in society where they live*”. This could be interpreted as two different causes; one related to place and one to people, but the common referral to the two items together shows the related nature of these two causes (Kawachi & Berkman, 2003).

**Chloé:** *ok. Why do you think that is? [that some people misuse play areas]*

**John:** *Oh it’s... the area. The people that live in the area [...] where they live, and in society where they live and the way they’ve been brought up and their parents.*

He discussed this theme of people and place further later relating problems associated with play areas to parental influences, lack of appreciation of facilities, and social deprivation:

*“But, play areas, as I say it’s all down to appreciation. In some areas you go into and there’s no appreciation for what you do or for what they’ve got. They just want to destroy. And it’s the way they’ve been brought up. And the way their parents are. [...] It all comes down to deprived areas. Just the people that live in these areas don’t pay for nothing so they’ve got no concept of anything. Cos if you smash a windae the council comes and repairs it, but if you stay in a bought house, if you smash a windae you’ve gotta repair it. [...] People don’t know value for things in certain areas because they’re getting everything paid for them. They don’t need to worry about anything. [...] and it’s getting passed doon the line, ‘och don’t worry aboot that the cooncil’ll fix it’ [...] But that’s what it’s all about. That’s the problem that people don’t know the value for things and don’t appreciate things.”*

John - Play Area Maintenance Operator

Eddie also mentioned parts of society who were to blame for this misconduct:

*“It doesn’t appeal to every kid out there and there’s a certain element out there that nothing’ll appeal to them. You could give them absolutely everything. [...] Basically your ‘Neds’<sup>10</sup>, basically. There are certain people out there, we shouldny kid ourselves, there are certain people out there that you could do everything for and it still wouldny make they decent citizens [...] and they feel everything should be given to them. And there are people out there that are like that and no matter what you give them, what you do to their house, what you do to their environment round about them, they won’t look after it.”*

Eddie - Managerial Staff

He adds that he does not think there is any way of altering this path of influence:

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<sup>10</sup> “Ned” is a Scottish derogatory term used to describe young people, similar to the term ‘chav’ in England. The Concise Oxford English Dictionary defines ‘ned’ as “a hooligan or petty criminal; a stupid or loutish boy or man.”(2008)

*“There’s people that are not nice people and they will always be that way and unfortunately so will their children because that’s the way they’re brought up and you canny change them. You can’t. Personal opinion.”*

Eddie - Managerial Staff

Three of the seven maintenance men mentioned the word ‘*culture*’ specifically as a reason for misuse, and two talked about a ‘*mentality*’. Mike, like John and Eddie, talked about this culture being passed on from parents to children:

*“There’s just this culture among the kids that ‘just throw it there’ and it’s their parents as well. ‘Och it’ll gae somebody a job’”*

Mike - Managerial Staff

### **Lack of policing**

Maintenance men noted that they felt that visiting the play areas once a day was not enough to combat misuse. They felt that a greater degree of surveillance was required by the police, GCC and the local community, in order to stop misuse associated with youths congregating and drinking alcohol at night. Some believed that the police ignored underage drinking and youths congregating in play areas since it meant that the teenagers were not causing problems elsewhere:

*“Where else can they hang about, where else can they go and drink? In play parks cos police don’t bother with play parks [...] I think you need the police or the community police or whatever should at least take a drive by once a night, twice a night.”*

Brian - Play Area Maintenance Operator

\* \* \*

*“You’re not supposed to drink outside anyway, but as I say, I believe the police leave them in there because they’re oot the road, they’re no’ annoying the tenants if you like. But besides increasing park patrols and police presences, you’ll never stop it.”*

Craig - Play Area Maintenance Supervisor

\* \* \*

*“Cos it’s a police matter really int it? But the police are quite happy cos if they’re in a play area [...] they’re not wrecking cars, they’re no’ causing..., they know where they are so they’re quite willing to let them wreck things I reckon.”*

John - Play Area Maintenance Operator

\* \* \*

*“I think it’s the community for allowing it to happen. Because the community are turning a blind eye to a lot of the things these days and as long as they’re no’ getting any grief, they’re allowing it. They’re just gonna let it happen cos, ‘och they’re better off o’er there than they are standin’ at the bottom of my close,’ if you know what I mean or, ‘they’re better o’er there rather than damaging my car,’ sort o’ thing, ‘so let them wreck that play equipment.’”*

John - Play Area Maintenance Operator

Eddie also believed that, as well as regular maintenance from the council, it was important that the local community took an interest in the play areas within their neighbourhood:

*“It’s making [sure] that the play area feel part of the community and belonging to them and getting them to take care of it as well. I know I’m talking about the council maintaining - it is very important but you need to have the community with its feeling of ownership as well. Saying, ‘that’s ours. That’s our children’s. You leave that alone and don’t damage it.’ And hopefully they will last as long as anywhere else.”*

Eddie - Managerial Staff

Alex pointed out that teenagers would use play areas as a place to congregate and drink alcohol as it was *“somewhere oot the way, away from their parents.”* Similarly, Eddie discussed his belief that youths would congregate *“in places where they feel safe”* and where *“the police won’t bother them and none of the residents will bother them”* or challenge their behaviour. Craig understood that play areas may be an ideal location for this and said that *“most play areas are*

*kinda secluded. They're away from the public gaze."* The type of equipment as well as the site of the play area may impact upon vandalism since, as John commented, they may provide *"somewhere for them to go in the bad weather to drink...cos it's sheltered"*.

Several described the importance of play areas being sited in areas which provided *"natural surveillance"* so that inappropriate behaviour in the play areas could be seen by local residents or passers by:

*"it's gotta have good natural surveillance [...] a site that's going to be overlooked and there's going to be plenty of people seeing what's going on. Don't isolate it."*

Eddie - Managerial Staff

\* \* \*

*"So it does get pretty well used and a lot of the gang fights have stopped and in the park itself, some of the things we've done to encourage people back in is cutting shrubs right doon, so that people can get a clear view and make sure there's naebody hiding in the bushes or anything like that. So it seems a friendlier place for people to come into."*

Dave - Play Area Maintenance Supervisor

### ***Boredom and Youth Diversionary Ideas***

Maintenance men mentioned that youths might vandalise play areas out of boredom, and that there may be limited recreation facilities for young people. However, others remarked that there were football pitches and swimming pools available for young people, and most indicated that even if youths were bored, it was not a valid justification for their behaviour.

*"Chloé: so why do you think they damage them?"*

*Brian: They've nothing else to do. There's nothing else in the areas bar a play area [...] There's nae social clubs, there's nothing for the kids up until eighteen."*

\* \* \*

*“They’ll tell you they’ve nothing to dae, but I mean I never went and done that when I was younger and a lot o’ people never done that when they were younger so I don’t know. That bit there at the leisure centre, they can go in and play five-asides, they’ve got the swimming there as well, there’s plenty to dae in that area. I know a lot of parks used to have the pitch and putt and the tennis and bowling and stuff like that and golf and now it’s all closed down. I don’t know if that’s part of the problem as well [...] They tell you that they’re bored or this, that, the next thing, but you know, a lot of people were bored and they never done that. I dunno.”*

Dave - Play Area Maintenance Supervisor

\* \* \*

*“It’s an easy excuse when they’re getting themselves into bother: ‘There’s nothing to do’...But I’ve never been a great believer in ‘there’s nothing to do’. There’s always something to do. Because certain parts of society, or certain groups of youths will go and amuse themselves by playing football in the park or whatever, and there’s others who just want to hang about and get themselves into bother and then blame everybody else for it.”*

Eddie - Managerial Staff

Some participants felt that youth diversionary tactics could be used to help minimise misuse as it would keep teenagers away from the play areas:

*“Because part of the problem is you’ve got the older kids in using the stuff for the younger ones and they were breaking it. So what we’ve done is the multi-purpose one with its basketball court and its five-aside court so they’ve actually been staying away from the other stuff. They’ve actually got something else that they can use theirselves, so they’re no’ going in and sitting at night sorta thing. So you’re not’ getting as much damage done to any of the places like that, you know.”*

Dave - Play Area Maintenance Supervisor

### ***An impossible task***

Despite suggesting various reasons for misuse and damage to equipment, most participants said that they did not know why it occurred and how they could stop it. At the beginning or end of descriptions for the reasons for misuse or methods to combat it, the men tended to say things which suggested that they felt that it was an impossible task. Most sounded disillusioned by methods to try to improve play areas and this may have contributed to some of the men's low morale and job satisfaction.

*"You'll never stop it."*

*"You canny do anything about that."*

Craig - Play Area Maintenance Supervisor

\* \* \*

*"I dunno. It's a hard thing to do. We've got that much vandalism."*

*"There's not a lot we can do."*

Dave - Play Area Maintenance Supervisor

\* \* \*

*"Things will happen"*

Eddie - Managerial Staff

\* \* \*

*"But what can you do about that...it's just one of they things"*

John - Play Area Maintenance Operator

#### **5.4.1.3 Good play areas**

I asked participants what aspects were the most important for a good play area. All of the participants mentioned safety as one of the vital aspects of good quality play provision. They talked about this either as safety from people or from injury and suggested that the play area should be well overlooked with well maintained equipment and safety surfacing.



*“The most important thing is to make sure they’re safe for the weans.”*

Craig - Play Area Maintenance Supervisor

\* \* \*

*“Safety rather than anything else. It’s gotta be safe to use”*

Mike - Managerial Staff

\* \* \*

*“I would say it would be the safety part. To a working order and maintained.”*

Alex - Play Area Maintenance Operator

Whilst all participants noted that safety was vital they also suggested that the equipment provided in play areas should be plentiful, varied and exciting. Dave suggested that the equipment should be *“something everybody can use - all different ages,”* and Mike believed that good play areas had *“a good mixture of equipment”*. More modern equipment was favoured as it was more aesthetically pleasing and could be more exciting. John said that the most popular equipment was *“More daring...more adventurous”* and Craig suggested that it was a *“Kinda adrenaline rush for the kids.”*

#### **5.4.1.4 Bad play areas**

I also asked them what things would indicate that a play area was of bad quality. Whilst some factors were essentially the antithesis of a good play area, some suggested that the presence of teenagers loitering in play areas would be the main barrier for parents or children.

*“Chloé: What do you think are the main things that would put someone off from using a play area?”*

*Alex: Well it’s got to be the young ones don’t it? The teenagers I would say. They see teenagers and they’ll just walk by it or they’ll come at a different time.”*

Alex also added that having poor quality equipment in a play area meant that it would become a place that was misused and somewhere that teenagers congregated.

*“I would say just where there’s hardly anything to do in it. Like just static, a lot of static equipment where they turn up - that comes more like a place where the drinkers and the older teenagers hang about and sit on it and all that.”*

Alex - Play Area Maintenance Operator

Unsurprisingly, vandalism was suggested as something which would deter users. Mike suggested that, as a parent, he would be put off using a play area if some of the equipment had been damaged and would be likely to seek another play area if it continued to be vandalised even after repair.

*Chloé: What about a bad play area? What do you think turns a good play area into a bad one?*

*Mike: vandalism. It annoys the guys who go and maintain them as well. Apart from obviously adults turning up with their kids and they walk into a play area and it’s just been smashed up and it’s discouraging, they probably wouldn’t go in it in the first place even though there’d maybe be a couple of bits of equipment that were useable. The chances are that they’re not gonna go back again. Or if they do come back and it’s smashed up again then effectively that would be it, personally from my point of view having kids I wouldn’t go back to that I would go somewhere else.”*

#### **5.4.1.5 Public perceptions of Play Areas**

As well as talking about their own views of local play provision and youths, the maintenance men also spoke about what how they thought the public would perceive these issues. Whilst participants said that they receive a mixture of praise and criticism from the public when they are maintaining play areas, Alex commented that some of the public think that they are wasting their time installing new equipment and maintaining play areas since the sites will get vandalised.

*“Alex: “You get “you’re wasting your time,” and things like that.*

*Chloé: Why do they think you’re wasting your time?*

*Alex: Because they can see the people that abuse it. So, I don’t see them, cos I’m no’ there at night, so they can see what’s happening when I canny. Then I’m just wasting my time cleaning it up and things like that.”*

The men reported that they had received complaints from local residents who did not like young people using ‘their’ parks at night, but they were not always sympathetic to such complaints:

*“The residents don’t like a lot of people using it as night, because they’ve got two football pitches there as well and we got a complaint in from one of them that people are coming from other areas to use ‘her’ park. We says ‘it’s no’ your park, it’s the people of Glasgow’s. It’s there for them to use. Even if it’s a football park.’ Cos she was complaining that they make a noise and they swear and things like that, ‘och we’re very sorry about that.’ (laughs) ‘But that’s life.’”*

Dave - Play Area Maintenance Supervisor

\* \* \*

*“A lot of the phone calls are ‘there’s kids sitting on the benches, talking and making a noise.’ They’re kids. They’re just talking. Give them a couple of hours and they’ll be away home. But they don’t like people sitting outside their front gardens really that’s what it is and they think, ‘Oh that’s MY park, they came from up that next street, that’s not theirs’ and it’s sometimes just nonsense.”*

Mike - Managerial Staff

The complaint that Mike describes about youths sitting on benches talking is similar to the maintenance men’s own generally negative perceptions of youths; however the way Mike talks about the complaint indicates that he does not perceive the children as a problem, but considers the residents’ complaints as the issue. The maintenance men talked about teenagers causing the problems in play areas, but Mike implies that not all children or young people behave badly; a view shared by Eddie:

*“Kids have always hung about. I hung about when I was younger as well and it’s people’s perception of what they’re up to when they’re hanging about. An awful lot of people see youngsters hanging about and automatically think they’re up to no good. Whereas I would say probably in the majority of cases it’s the opposite. They’re just simply hanging about.”*

Eddie - Managerial Staff

\* \* \*

*“I think people’s perception is that they canny go out anywhere because gangs of youths are roaming wild and every collection of youths on any street corner must be a gang and must be tooled up with weapons and must be out to mug people. It’s no’ true but I don’t know how you get through to people that it’s not as bad as it is.”*

Eddie - Managerial Staff

#### **5.4.2 Summary of Maintenance Men’s Views**

Whilst, in general maintenance men thought that the provision of play areas was improving, misuse and vandalism were strong themes in this research. The men indicated that it was getting harder to maintain play areas due to increasing levels of vandalism, which they blamed teenagers for. Youth disorder, underage alcohol consumption and gangs were also problems raised. The men also thought that teenagers’ presence in play areas may intimidate other potential users. They suggested that these problems were due to a “culture” and “mentality” of people of low social class, living in deprived areas.

#### **5.4.3 Parental perceptions of Play Areas**

This section covers themes which relate to parental perceptions which were identified from interviews with maintenance men (some of whom were fathers); a paired interview with two mothers from a deprived area and field notes from a de-briefing meeting with fieldworkers who conducted the quality audit of play areas (discussed in Chapter 4). The main issue that parents talked about was safety. They were concerned about children’s safety from strangers and their

risks of injury. Parents' apprehension about the presence of local youths at play areas was also raised.

#### 5.4.3.1 Value of play

At the beginning of the paired interview, I asked mothers how important they thought play was for their children. Since the participants were aware that the research was about barriers to the safe and healthy use of play areas, this was quite a loaded question, and naturally they both reported that they thought it was “very” important. They quickly commented that their daughters were more interested in playing with games consoles than playing outside and noted the risk of being overweight from this. This may suggest that they do not consider using games consoles as ‘play’.

*“Chloé: And how important do you think play is for your children*

*Mary: Very.*

*Jenny: Mmm hmm*

*Jenny: She's more into the games consoles the noo. That's all she's interested in.*

*Mary: Aye, sitting on their backside. My daughter was overweight and a lot of it's doon to the fact that for a while there she wasny going oot and playin' and was sitting in the house.”*

When they listed the benefits of play they mentioned the social and physically active components of play: “socialising”; “learning to play and no’ fight”; “meeting other people”; “exercise” and “enjoyment”. They later suggested reasons why children liked play areas which related to being able to be noisy and active without reprimand as well as being able to test their body’s abilities.

*“Jenny: They can get up to mischief [spoke positively] and not annoy anybody.*

*Mary: They can scream and shout and because it's a play park no body seems to bother.*

*Jenny: Naebody'll shout at them to be quiet ... It burns their energy off rather than just sitting about. Keeps them amused.*

*Mary: and they're always trying to get that wee bit further I think*

*whether it be get up a climbing frame further or get faster down the chute.”*

#### **5.4.3.2 Where children play**

The mothers said that their children spend quite a lot of time engaged in play and that they mainly played “*in the house*”, “*in the street*” or “*at a friend’s house*”:

*“From when she comes home from school to when she goes to bed.”*

Jenny - Mother living in a deprived area of Glasgow

However, they did not mention play areas until they were asked specifically. The fieldworkers commented that they thought that children had greater access to recreation pursuits in their homes and gardens and more opportunity to attend after school clubs and other supervised activities, than previous generations and suggested that these options may be chosen above visiting play areas. The fieldworkers also suggested that they were reluctant to let their children outside on their own, and the mothers pointed out that they imposed strict limits on their children’s independent mobility if they were playing in the street:

*“Mary: They’ve got a perimeter they know... As I say, if I go out and shout, you hear me. If you’re too far away you’re snibbed [grounded] cos you’re too far away if you canny hear me.*

*Jenny: My one was I shout three times, if you don’t answer the third time; you’re grounded [laughter].”*

#### **5.4.3.3 Barriers to Play**

When I asked the mothers about the provision of local play areas around their home, they replied that they had “*nothing*”. Whilst there were some areas of green space and play areas locally, they did not think that they were suitable for their daughters. For all parents, the main barriers to play related to safety: risk of injury; assault and abduction.

#### ***Safety from youths***

Parents were worried about the presence of youths at play areas and Brian mentioned that he does not allow his ten year old daughter to go to the local play area alone as he cannot supervise her from his house and he knows that the local gang congregates there. He suggests that even if the play area was renovated, she would still be barred from playing there without supervision since he is worried about the other people that use the facility:

*“it’s not safe it doesn’t matter what they build there, they could have a thousand pieces of equipment, or a million pound worth, but if you’re still gonna get undesirables hanging about it, it doesn’t change anything does it?”*

Brian - Play Area Maintenance Operator

This parental concern for their children’s safety from teenagers or gangs seemed to be related to worries about them being injured through bullying or assault as well through the behaviours that teenagers may be engaging in:

*“You’re no gonna allow your kid to go o’er there where there’s people drinking and people smoking and god knows what they’re doing and you’re gonna say, “right play in the hoose.”*

John - Play Area Maintenance Operator

When I showed the two mothers photographs of play areas in Glasgow and asked them for their opinions, they used their local knowledge of one particular play area and said that they knew that *“older ones hang about there”*, and so they wouldn’t let their children visit it. They also spoke about the fact that some of the equipment in one of the play areas was covered with graffiti and said that that would make them *“a bit dubious”* about allowing their children to play there.

*“Aye, see that’s the thing. The fact it’s all graffiti and what not makes you think that there’s toe-rags hangin’ about it”*

Mary - Mother living in a deprived area of Glasgow

*“But you get all the ‘Young Team’ [local gang or group of ‘neds’] and that hangin’ about and they start from 3 o’clock onwards.”*

Jenny - Mother living in a deprived area of Glasgow

The potential for children fighting was also a barrier for parents. One of the mothers spoke about a local community centre where, even with adult supervision, a fight between younger children had broken out and escalated so that a lot of older children were also involved. This not only made her wary of allowing her daughter to go there, but she said that her daughter did not like visiting it since she was not friends with the children who were often there. She also said that youths hanging around a play area would pose a barrier for her daughter:

*“there’s too many o’ the wee ones up our way that she doesny get on wi’ are down there as well and they seem to rule the roost. So she doesny like it. [...] but she’ll no’ go in if she sees a crowd hangin’ about, she’ll just say, ‘no, we’ll go up the road.’”*

Jenny - Mother living in a deprived area of Glasgow

The mothers also mentioned that bullying was a problem, and said that there were “*cliques*” of children. They suggested that if a child was being bullied during school, then it was likely that the bullies lived within the same neighbourhood and the bullied child then may stay indoors to escape the harassment.

### ***Safety from injury***

Two of the parents talked about how their children had fallen quite badly at play areas and that this now made them more concerned for their safety. Mary noted that her daughter had cut her knee on broken glass, necessitating hospitalisation and a fieldworker whose child was younger mentioned that her son had fallen from a roundabout when older children were pushing it too fast. Mary spoke about being risk aware throughout the interview:

*“My daughter actually split her knee open in that park - the one up at the flats. [Goes on to discuss the required hospital treatment] You’ve got that fear factor. I mean if she can do that in a park, in a kid’s park,*



*what would happen elsewhere just on bit o' grass or a bit o' land. For me, aye, there's definitely that factor of 'what if..?'"*

Mary - Mother living in a deprived area of Glasgow

One of the maintenance men also spoke about how some of the play areas that he looked after were not safe for children and that he would not allow his child to play there. He suggested that some of the equipment provided was unsafe and could spin too fast, or did not have hand rails.

*"Brian: Cos there's a couple of pieces of equipment in my area that I've seen school kids on it and if they come off it they're gonna hurt themselves and you go 'no way should that be on a kids area'*

*Chloé: what kind of stuff?*

*Brian: like a see saw thing that spins round in circles and when it spins round in circles it can hit some speed."*

Two other maintenance men raised the issue that parental concerns may manifest themselves in litigation, and spoke about GCC's worries about legal action due to possible injuries to children in play areas. Whilst John talked about "claim culture" in a negative way, he considered that his role was important as it ensured that the council were not held responsible for injuries:

*"At the end of the day, that's what our jobs all about. To make sure that they're no' liable for nothing because everything is all about health and safety. And its... we're there to make sure that naebodys gonna put a claim in and they're gonna have to pay oot. That's the crux of it."*

John - Play Area Maintenance Operator

Craig also mentioned litigation and discussed how a parent had tried to claim for compensation when their daughter had fallen from a roundabout and broken her arm. He did not think that this was justified and suggested that children are always at risk of injury:

*"I mean kids are kids. You canny just... if you take a kid to a play area and they get injured, if the equipment meets the standards then there's nothing else we can do about it. If a kid falls off something, we've got the best surface doon, if it's a rubber matting or whatever, that's the*

*best we can do. You canny wrap them up in cotton wool. I mean, every kid gets injured.”*

Craig - Play Area Maintenance Supervisor

Whilst some of the maintenance men did not think that the litigation was justified and suggested that parents may be overly risk aware, the fieldworkers did not agree. One of the fieldworkers was quite concerned about the amount of broken glass and damaged equipment in play areas and said that as a parent, she felt that there were very few play areas where she would be able to let her children “*roam free.*” She also talked about how the city council had a responsibility to provide play equipment that was safe:

*“When one of the fieldworkers was talking about very high spider nets she suggested that they were unsafe as the fall height was so great. She said that although she used to climb trees and things when she was little, she thought that it was different. She said that the council provides these things and therefore they should be safe. Whereas if you fall off a tree and hurt yourself, it’s your own fault cos you shouldn’t have been climbing it. She felt that the council should be held responsible if a child fell from one of the climbing frames and hurt themselves.”*

Field notes from de-briefing meeting with fieldworkers

The fieldworkers were also concerned that wood chippings underneath equipment were unhygienic and unsafe since they may contain glass, litter and animal faeces. Whilst broken glass was also a concern raised by the mothers during the paired interview, they were more worried about the presence of injecting needles. This is in contrast to the maintenance men’s perceptions of a low prevalence of needles:

*“Mary: Er, the nearest bit of green land, I wouldny take her [...] and there’s no way I’d let her near it cos you don’t know what’s there-*

*Jenny (interrupting): -Needles*

*Mary: It’s no’ just a case o’ broken bottles and stuff. There could be needles and a’ sorts. So there’s no way I’d let her in it. So it’s the street or the house.*

*Jenny: Cos I’ve seen quite a few of them doon in that [local park] just at the back there’s quite a few of them there. And broken glass.”*

The mothers mentioned a number of aspects of safety, including abduction or sexual assault:

*“Chloé: so what do you think your biggest kind of worry is in letting your children out to play?”*

*Jenny: needles.*

*Mary: safety.*

*Jenny: Mmm hmm*

*Chloé: safety from?*

*Jenny: [sigh] Traffic, adults, kids you name it*

*Mary: the public, the broken glass and the needles to other kids and the ‘bad man’”*

Mary went on to say that she had educated her daughter about “*bad men*” and the potential for abduction or sexual abuse at an earlier age than she had been when she learnt about such threats, because she felt that it was necessary that she was aware of the risks. She was disappointed that she had passed on her own worries to her daughter, but justified it by considering that her child’s safety was her most important concern:

*“I remember when I was at an age of ten or eleven where you got taught what strangers can do to you, not just you don’t go with strangers. But, I remember telling my daughter at the age of four, to a certain extent that “bad men” can touch you and where they can touch you, because I thought ‘they’ve got to know at that age now’, which is ridiculous. You shouldny have to try to explain it to a four year old.”*

Mary - Mother living in a deprived area of Glasgow

\* \* \*

*“So you’re instilling that fear into them right away that a stranger isn’t a nice person and it could be somebody that’s really nice. It’s getting that balance. You’re always gonna get it wrong somewhere, but you think ‘to hell with it as long as the wean’s safe’. And that’s what comes first”.*

Mary - Mother living in a deprived area of Glasgow

The mothers also discussed that they believed that girls were more at risk of abduction or assault than boys since boys could “*handle themselves a bit better,*” and that a paedophiles would choose to abduct a girl rather than a boy.

*“Mary: Cos I think if it comes to it, if there’s a guy out there that’s gonna lift a wean he’d bypass a boy if there’s a lassie there.*

*Jenny: Aye precisely.”*

Eddie commented that people’s perception of crime is worse than reality and thought that the media were to blame to some extent since the people learned about crimes that were committed in other cities and countries and considered themselves to be at risk, despite the fact that the crime was potentially quite removed from their own lives. However, for some of the parents, their experience of crime did not come from newspapers or television; some crimes occurred within their own block of flats and this made them concerned for the safety of their children.

*“If it was nearer and you could see from your window without having to panic and go down the stairs after them... I’ve got a lot of trouble up my close as it is. So as soon as she’s outside that door, my stomach’s in my mouth until she’s back in. We’d an attempted murder up our close two weeks ago.”*

Jenny - Mother living in a deprived area of Glasgow

### ***Safety from traffic***

Road safety was only mentioned briefly by the mothers and not mentioned at all by any of the other parents. This may be since their children were not allowed to travel far unaccompanied; road safety was not an issue. When talking about traffic, the mothers considered it a nuisance as well as a safety issue since when their children played on the street, passing traffic interrupted their games.

*“Mary: When you’re talking playing on the street that cars are going up and down, all be it’s a quiet [...] but there’s still cars going up and doon. So they can only do so much. They canny have a decent game o’ anything because in case they’ve got to stop and let all these cars passed. Plus you’ve still got these idiots coming round the corner at 40 mile and hour.*

*Jenny: or going up and down that street backwards is there favourite thing the now wi' all o' them up there."*

#### 5.4.3.4 Improving Provision

##### *Target audience*

Both the fieldworkers and mothers thought that there was limited provision for older children. The fieldworkers suggested that there should be a wide range of equipment suitable for different age groups, including a fenced off area for toddlers, within one site. They suggested that this was particularly important if you had more than one child. The mothers commented that the more adventurous styles of equipment would be more appealing to their children.

##### *Supervision*

The mothers felt that their children were only safe when they were under adult supervision and this meant that they participated in more organised activities than simple outdoor play. Mary said that her daughter went to as many after school clubs as she could in order to occupy her evenings since the weather and dark nights meant that she could not go outside to play:

*"The only place they're really safe is like at the Brownies and the Guides an' that where you know... that's about the only thing."*

Jenny - Mother living in a deprived area of Glasgow

\* \* \*

*"Mary: She loves everything that comes up in the school, after school. She puts her name in for it. It's a case of because it's something to do after school. It must be a long time between 3 and like 8 the next day - it's a long time to fill and they're sitting and basically a' they've got is the tele. At this time of year it's just worse cos they're in, 'No it's too could you're no' getting oot' or 'it's wet you're no' getting oot'*

*Jenny: I know. Or it's too dark."*

Consistent with the maintenance men's beliefs that there should be greater policing of play areas, the fieldworkers and mothers thought that *"the parkie"* should be reinstated. They felt that if there were park attendants at play areas, then their children would be safer and vandalism would not be as much of a problem as there would also be someone there to supervise the children. They believed the cost of the attendants' wages would be covered by the money the council would save from having to repair equipment and paint over graffiti:

*"In saying that, it [employing a park attendant] would probably save the councils money because instead o' having to constantly go out and re-paint or re-plant or whatever, as much as they've got to pay a wage, it possibly would save them money. Just employing somebody. [...] And that way you're not going to get the troublemakers cos they can just get put out. And the weans that want to be there to enjoy it, can"*

Mary - Mother living in a deprived area of Glasgow

They did wonder if children would respect a park attendant enough to heed to their warnings:

*"Mary: Noo, even if they did have park attendants, the kids would just tell them to 'F-off'. I mean they know; what can they dae? 'You're only a parkie!'*

*Jenny: 'you canny tell us what to do!'"*

### ***Types of Areas***

The mothers believed that there was more vandalism in deprived areas than in more affluent neighbourhoods. They hinted that this was because of the people living there, but this issue was not explored extensively in the paired interview. Whilst they did not think that more affluent areas would receive greater investment, they suggested that the money such areas did receive would last longer, since there would not be the continual need to make repairs following vandalism:

*"If you're talking, somewhere like Bearsden, it's no' gonna get vandalised and wrecked the same."*

Mary - Mother living in a deprived area of Glasgow

\* \* \*

*“Chloé: Em. What do you think could be done in your area?”*

*Jenny: Pull it down and start again.*

*Mary: Problem is they’d put the same people back in.*

*Jenny: I know.”*

\* \* \*

*“Probably to start with, maybe at the beginning of the financial year, the two [areas] have got the five thousand pounds, say, but for better areas that five thousand pounds will last longer cos it’s not constantly getting upgraded. I mean they could be getting a new chute put in or something added whereas in these kinda areas they’re having tae take the chute oot, and put a new one in cos it’s all demolished or whatever. So we’re not getting upgrades cos they’ve gotta keep fixing what’s there.”*

Mary - Mother living in a deprived area of Glasgow

## 5.5 Discussion

This chapter presents research which examined adults’ perceptions of play provision in Glasgow. It found that whilst adults and parents in Glasgow thought that the quality of play provision was improving, it was marred by misuse in some neighbourhoods. The main barriers to the safe and healthy use of play areas by children stemmed from vandalism and underage alcohol consumption and youth disorder and were blamed on a “culture” or “mentality” of those people in lower social classes.

### 5.5.1 Comparison to other studies

There is limited research concerning the quality of play facilities, but what is available suggests that it may be worse in deprived areas (Cradock, Kawachi, Colditz et al., 2005; Suecoff, Avner, Chou et al., 1999). This research adds a more in depth view of the types of problems encountered in play areas in Glasgow.

Parental concerns about their children's safety and its implications for reduced independent mobility have also been reported elsewhere (Mackett, Brown, Gong et al., 2007). If parents allow their children less independence and keep them under supervision, and the only young people outside in the community are demonised for being there, then this may self perpetuate parents' safety concerns. There may be fewer children visible in the neighbourhood, which may result in it being considered irresponsible parenting to allow children out to play unaccompanied. A greater reliance on adult directed or supervised play may mean that children do not experience the different potential benefits from free play.

The barriers reported in this chapter, are similar to those reported by children in the previous chapter, and are the same aspects of safety and quality that were found to be worse in deprived areas (Chapter 3). Thus parents and children living in deprived areas may be faced with more barriers to outdoor play area use.

### **5.5.2 Vilification of Youth**

One of the main themes that came out of this qualitative research was the general vilification of youth. Participants believed that the problems were due to teenagers using play areas at night as places to congregate and assumed that the graffiti and damage to equipment was caused by these groups. Their suggestion that groups of teenagers are intimidating to the general public is consistent with other research (Jenkins, 2006; Valentine & McKendrick, 1997; Veitch, Bagley, Ball et al., 2006) which has found that parents and children are worried about the presence of teenagers because of their association with bullying and criminal behaviour. Adults in my research talked about the presence and delinquency of the local "*young team*" and other gangs and seemed to consider most groups of young people as being part of a criminal gang. This is consistent with findings from the Scottish Social Attitudes Survey which indicate that 60% of adults think youth behaviour is worse than in the past, and that they think that youth crime is increasing (Anderson, Bromley, & Given, 2005). In my research, only one participant talked about the general public having a misconceived view of young people, but he said he did not know how views could be changed. The negative associations with young people have



been highlighted recently in a television campaign by Barnardo's (2008b) against the demonisation of children. In the film, a group of adults hunt down and shoot 'feral' children. The commentary used in the film was taken from adults' comments made in reference to online UK newspaper articles about children and included phrases such as:

*"They're feral, cruel and ruthless; it's in their nature";*

*"They're vermin";*

*"Shoot a few, if that doesn't work, shoot a few more";*

*"Let's sort these parasites out";* and

*"To hell with their human rights"*

(Barnardo's, 2008b).

Barnardo's highlight that this heightened apprehension about young people has led to their increased social exclusion, even though only a small proportion of children behave delinquently or anti-socially.

However, the public's negative perception of youth is not a recent phenomenon. Geoffery Pearson discusses the history of hooliganism in his seminal text *"Hooligan: a history of respectable fears"* (1983). He describes how young people, usually young boys of working class, have been vilified for over a century, with the term *"hooligan"* thought to be coined in late Victorian London to describe the young boys of the era. These *"hooligans"* have been present throughout the ages and now, in Glasgow, it could be said that the 'neds' and 'young teams' are the subject of such fear. Pearson concludes that believing that delinquent young people are a new social crisis, *"trivialises the problem"* (1983, Pg. 242) which complex strategies are required to solve:

*"street violence and disorder are a solidly entrenched feature of the social landscape. Hence they are going to be much more difficult to dislodge than if we imagined that they had suddenly sprung from nowhere in the past twenty years or so; or since the war; or because of the arrival of black people in Britain; or because of recent changes in the law; or as a result of 'new-fangled' educational philosophies, or any other symptom of 'permissive' modernity. Such commonplace formulae as these, which refuse to grapple with the problems that have exercised the minds and actions of generations before us, trivialise the problem.*

*Long standing social difficulties and disputes are not solved by short, sharp remedies.”* (Pearson, 1983, Pg. 242)

These “*hooligans*” and “*respected fears*” are similar to Cohen’s theory of “*Folk Devils and Moral Panics*.” In his book of that name, Cohen discusses how the public’s “*moral panic*” can be perpetuated by the media in response to certain incidents or people (“*folk devils*”) and is famously used in reference to the mods and rockers of the 1960s. He describes moral panic as:

*“Societies appear to be subject, every now and then, to periods of moral panic. A condition, an episode, a person or group of persons emerges to become defined as a threat to societal values and interests; its nature is presented in a stylized and stereotypical fashion by the mass media; the moral barricades are manned by editors, bishops, politicians and other tight-thinking people; socially accredited experts pronounce their diagnoses and solutions; ways of coping are evolved or (more often) resorted to; the condition then disappears, submerges or deteriorates and becomes more visible. (Cohen, 1987b, Pg. 9)*

He goes on to discuss the implications of moral panic and notes that whilst some concerns are forgotten about and only remembered in “*folklore*” (hence “*folk devils*”), others have far greater repercussions, influencing legal or social policy changes. The Local Government Association discusses the issue that children’s behaviour is becoming more criminalised (e.g. Anti-social Behaviour Orders - ASBOs) which may influence the public’s perceptions of the rates of crime:

*“Certain behaviour and activities that may, in the past, have been considered to be less serious in nature may now be associated with criminality”* (Hasley & White, 2008, Pg. vii)

Whilst it would be foolish to ignore that some teenagers do behave badly or to think that gang culture is not present in Glasgow and elsewhere in the UK, those who engage in this type of behaviour are largely in the minority and usually the ones in most need of support (Anderson, Bromley, & Given, 2005; Barnardo’s, 2008a). Since policy makers may respond to public concern regarding young people, there is a chance that they may become further socially excluded.

The results obtained during this research were, to some extent, influenced by me and my personal characteristics, since qualitative data are the product of an interaction between researcher and participant. This reflexivity is discussed in the next section in terms of how participants' views of me may have impacted upon what data were received.

### ***5.5.3 How did the participants view me?***

It has been suggested that being a neutral data collector is not achievable when conducting qualitative research and instead, *“you are highly likely to conceptualize yourself as active and reflexive in the process of data generation,”* (Mason, 2002, Pg. 66). Richards and Emslie discussed how their professional background may have influenced their results and suggest that similarly to gender, their professional background was enhanced or muted in different situations. Emslie, as a sociologist or *“the girl from the University”*, felt that in general her age and gender were more important than her profession, whereas professional background was more important for Richards who was a General Practitioner (Richards & Emslie, 2000). Whilst I tried not to influence participants' responses throughout the interviews, I acknowledge that the data produced from the interviews is a product of my interaction with participants and so my age, gender, social class may have impacted upon the results. In general, I found that I was viewed differently by different audiences and that the impact of this was greater during the recruitment than during data collection.

#### **“The wee lassie”**

When this research was conducted I was in my early twenties and had just finished my undergraduate degree. I was very concerned about appearing young and inexperienced since outside of a research context, I was often mistaken for being younger than I was. I was quite self conscious of this and wanted to be seen as “grown up” and professional during my field work. I was worried that if I was viewed as inexperienced then it would de-value the research and make it difficult to arrange my interviews. My first contact with a head teacher confirmed my belief that people may see me as a *“wee lassie”* when she chose to use exactly that phrase when describing how parents might perceive me.

However, the head teacher saw this as a benefit to the research rather than the negative issue which had played on my mind. She felt that parents might expect me to be an educational researcher and might feel intimidated or believe that I would judge their ability at parenting, but she added that once they saw that I was *“just a wee lassie”*, they would feel at ease. During the one paired interview that I conducted with parents, they did not appear to be intimidated by me and appeared to speak quite freely.

When I went to GCC’s Park Depot to meet the manager who arranged my interviews, he also gave me the impression that he thought I was a *“wee lassie”*. When he asked me how long the interviews would take, I hesitated before telling him that they would take about half an hour. He then said, *“Oh, have you not done this kind of thing before?”* He sounded a little irritated by my response, as if I was wasting his time. I had hesitated because I was worried that he might say that thirty minutes was too long. Instead, I think I gave him the impression that I was inexperienced. When I asked him for permission to ask the maintenance staff if they would mind me recording their interviews, he was a little patronising and explained to me that I should not assume people would want to be recorded, despite the fact that I had already clarified that I would ask their permission first.

Gatekeepers may have viewed me as a *“wee lassie”* and this is an aspect of my conduct that I think may have made it more difficult for me to gain access to participants. This was more marked during the school research than with GCC since managers were ‘instructed’ to allow me access by the head of parks.

### **“Pretty, blonde girl”**

When I walked into one of the GCC Park’s Depots, there were about forty or so men waiting start their shift. Being a young female in a predominantly male environment was a little daunting and I was embarrassed by the comments I received whilst walking up the long drive to the offices. My second interviewee made a few comments before and after the interview about how nice it was to sit opposite and spend time talking to a *“pretty, blonde girl”* and how it must be easier for a *“young, pretty female”* to go around play areas than a forty year old man. Although, he may have been trying to be friendly and helpful, this was one of the first times that I became aware of how my gender and how I looked

physically may have influenced the interview and rapport. His comments were not offensive, but he did make me feel slightly uncomfortable and embarrassed. In order to maintain the rapport, I tried to ignore his comments and just thanked him for his time. My experience is not dissimilar to other female researchers and it has been reported that gender is accentuated when women interview men since they are “*required to take on an acquiescent, attentive, and assenting role very close to traditional notions of femininity*,” (Green, Barbour, Barnard, & Kitzinger, 1993, Pg. 630).

### **“The student”**

Throughout the research I was often referred to by gatekeepers as, “*the playground student*”, or the “*girl from Glasgow University*” when I was introduced. Although this may imply that I am young and possibly inexperienced, it may also have also emphasised any educational differences that may have existed between me and some of the participants. When I told one participant that I wanted to record the interview so that I did not have to write down everything, I joked and said “*I’m not very good at writing quickly.*” He replied that he wasn’t good at writing at all and that was why he was working in the job he was in (play area maintenance operator). I tried to make my questions straightforward and jargon free and I don’t think that I was misunderstood. However, although I had no problem in explaining to participants what the research was about and why their views were important to me, I found it difficult to explain to them about a PhD. They often asked if the research was part of my course or degree or asked what the research was for. Research is quite an abstract concept, but combined with explaining a doctoral degree, I may have not have explained it very well and thus emphasised any educational divide. Since I was interviewing maintenance men as ‘experts’ in their field and highlighted that I was particularly interested in their opinions and experiences, I do not think that this potential educational divide particularly affected data collection.

### **“Rich girl”**

When one participant talked about the problems of teenagers drinking alcohol in play areas and the litter that they left behind, he said:

*“..If I had a tenner for every ‘Buckfast’ bottle I’d swept up in my life, I’d be a multi millionaire. I wouldn’t need to work. I’d have more money than you.”*

This was the first interview that I conducted with GCC maintenance employees and this comment surprised me. I was taken aback that he thought I was ‘rich’. I had been prepared that they may see me as educated, but I did not really expect such a class divide to be perceived, especially since I come from a working class background and neither of my parents attended university. I had not considered my own social class within the research context until this point and it was probably the first time that I realised that I was middle class. I was brought up in the South West of Scotland and so do not have a Glaswegian accent which may have helped him to form his opinions. Additionally, whilst I had tried to dress relatively casually, since he was wearing overalls and old clothes, I looked and felt completely over dressed. This may have also influenced him to think that I was ‘rich’. This divide may have in fact enhanced the data collection since John gave some valuable comments about different types of people, social class and neighbourhoods.

#### **5.5.4 Limitations**

Whilst this research uncovered some relatively in depth views around the quality of play areas in Glasgow, it has a number of limitations associated with the small number of participants and a lack of wide generalisability.

##### **5.5.4.1 Recruitment problems**

As discussed in Chapter 5, there were problems in recruiting schools to take part in this research. In addition to this, it was very difficult to recruit parents from the schools to take part in focus groups. Whilst five parents of children attending the recruited school in an area of high social deprivation initially volunteered to participate, only three returned their availability and contact details and of those only two turned up on the arranged day. The recruitment may have been more successful if there had been space on the original consent sheet for parents to include their contact details, as the follow up letter would not have had to go via schools.

Recruiting parents from the school in the area of low social deprivation was also troublesome. Whilst three parents initially agreed to take part, it was not possible to arrange a suitable time and place to meet with them since the research was conducted in the run up to the Christmas holidays and the parents and teachers were all very busy. Additionally although the school involved in this project initially agreed to help with the research, their interest waned after the research with the school children had been conducted and understandably they had greater priorities than helping to arrange focus groups with parents. I telephoned and wrote a letter to the school asking to arrange a suitable time to return after the Christmas holidays, but when I did not hear back from them for the second time, I decided not to pursue them further and to focus on the data that I had collected.

#### **5.5.4.2 Intensive interviewing**

The way of organising the fieldwork with the maintenance men meant that some of the control was taken out of my hands. For instance, it meant that I conducted five interviews, back-to-back, in half a day. There was no time to reflect or take field notes between participants and I found it quite intense. I sometimes had difficulties in distinguishing between individual participants, remembering details that they had told me and whether or not I had covered a particular topic with them. It also meant that, without time to listen to tapes before conducting another interview, it was difficult for me to develop my interviewing skills or notice which areas I was covering well or missing.

#### **5.5.4.3 Generalisability**

This research covered a number of topics about the provision and quality of play areas in Glasgow. However, it was exploratory with a small sample size which was mainly comprised of men responsible for maintaining play areas. Whilst these men had an in depth knowledge of the play provision in Glasgow and its problems, their views may not be representative. The views are limited to those who were resident within Glasgow and it is unknown whether these would be similar to people living elsewhere. As discussed, it was difficult to recruit parents for this study and those who were involved were from a deprived neighbourhood. It is not known whether the concerns that they mentioned would be the same as parents who lived in a less deprived area. Further

research is required to establish whether parental perceptions of play provision vary by area or socio economic deprivation, as well as the extent to which their views influence their own and their children's behaviours. However, the themes of risk, safety and poorer quality provision in deprived areas being attributed to the misbehaviour of those youths living there, that were found in this research, are consistent with what others have found in different cities and countries (see Section 5.1, above). Those in charge of play areas may not have to rely solely upon data from the UK as it appears that issues relating to the benefits and barriers of play provision are similar in developed countries.

## **5.6 Conclusion**

Interviews with maintenance men, two mothers and fieldworkers suggest that whilst the quality of play provision in Glasgow is seen to be improving, it is seen to vary by area; vandalism, underage alcohol consumption and youth disorder may create barriers for the safe and healthy use of facilities. Most participants felt that teenagers were responsible for the vandalism in play areas and that their presence would intimidate other users. Misuse and vandalism were blamed on the '*culture*' and '*mentality*' of some people of low social classes, living in deprived neighbourhoods. Parents were risk aware and were concerned about the safety of their children and suggested that adult supervision may improve the quality of play areas and their children's safety. The barriers that parents faced in allowing their children out to play (e.g. vandalism, broken glass, incivilities) were found to be worse in areas of high deprivation during the quality audit shown in Chapter 3. Therefore, parents living in deprived areas may face more barriers than those living in areas of low deprivation.

## **5.7 The contribution of this research to the academic literature**

Choosing to speak to those responsible for the maintenance and design of play areas, as well as parents, gave a rich and unique insight into the issues surrounding play provision in Glasgow. This work adds to the literature investigating parents' and adults' perceptions of their neighbourhood and



outdoor play provision and reinforces reports in worldwide literature in developed countries that safety from strangers and teenagers is perceived as the most salient risk (Adams, Harvey, & Brown, 2008; Jenkins, 2006; Prezza, Pillioni, Morabito, et al., 2001; Timperio, Dalmon, Telford, & Crawford, 2005; Valentine & McKendrick 1997; Veitch, Bagley, Ball, et al., 2006).

An additional key contribution of this research relates to contextual and compositional factors of place or neighbourhood. Adults in this qualitative research spoke about how the context of an area (e.g. the quality of a play area) was due to the composition of the neighbourhood (e.g. those living there). They suggested that it is the culture or mentality of those living in socially deprived areas that caused them to behave poorly and misuse their environment. This work is an excellent example of the idea that compositional and contextual factors are inextricably linked: “People make places, and places make people.” (Macintyre & Ellaway, 2003, p. 26).

## Chapter 6 Discussion

This is the final chapter of this thesis and here a return is made to the research questions identified in Chapter 1. A summary of the main findings are given beneath each of the four research questions and a discussion of how these findings fit together and what their implications are for physical activity and health is also presented. This is followed by some caveats, recommendations for further research and a final conclusion.

### 6.1 Main Findings

In this thesis, play areas were considered a health enhancing resource since they may provide an opportunity for children to engage in physically active play. Questions relating to the provision, quality and perceptions of play areas were addressed:

#### ***6.1.1 How does the spatial location and density of outdoor play areas in Glasgow vary by area deprivation?***

The density of play provision was greater in areas of high social deprivation compared to less deprived areas. More play areas were found per data zone when controlling for total population ( $p$ -value = 0.004), but this trend was not significant when accounting the population of children ( $p$ -value=0.161). Play areas in deprived areas were found to be closer to the centroids of data zones ( $p$ -value < 0.0001) and more data zones within deprived areas contained at least one play area ( $p$ -value < 0.0001). The density of provision was not found to be substantially different when it was assessed by different measures of deprivation.

This type of social patterning of play provision is similar to what others have found (Cradock, Kawachi, Colditz et al., 2005; Ellaway, Kirk, Macintyre et al., 2007; Macintyre, Macdonald, & Ellaway, 2008b; Smoyer-Tomic, Hewko, & Hodgson, 2004), however distribution of such resources is likely to depend on more than levels of area deprivation. It is likely that the historical development of a city, political factors, the availability of land and housing regeneration, amongst other things may impact upon the location and density of provision.

### ***6.1.2 How does the quality of such provision vary by social deprivation?***

The play areas in deprived areas of Glasgow are of worse quality than those in areas of low deprivation. Play areas in areas of high deprivation were significantly more likely to have litter and glass (p-value < 0.000), damaged benches (p-value = 0.015), inadequate safety surfacing (p-value = 0.028), broken or missing parts (p-value < 0.000) and rust on climbing and sliding equipment (p-value = 0.006) compared to those in the least deprived. Additionally, play areas in areas of high deprivation were significantly less likely to have litter bins (p-value = 0.007) and landscaping (p-value < 0.0001). Play areas in deprived areas had on average, almost three fewer positive features (p-value = 0.003) and five more negative features (p-value < 0.005) than those in areas of low deprivation. This relates to play areas in areas of high deprivation having only 33% of all possible positive aspects compared to 45% in areas of low deprivation (p-value < 0.0001) and having 48% of all possible negative features, compared to 39% in areas of low deprivation (p-value < 0.0001).

Others have found that some aspects of quality are worse in deprived areas. However on all measures of quality, play areas in Glasgow were poorer than those reported in North American studies (Cradock, Kawachi, Colditz et al., 2005; Suecoff, Avner, Chou et al., 1999).

### ***6.1.3 What do children from socio-economically contrasting areas think about play, outdoor play areas, and their local provision?***

Children reported that they enjoyed playing in a number of different areas, most of which facilitated physical activity. Those from an area of low deprivation drew more informal spaces, such as the street and small areas of green space, as somewhere they enjoyed playing compared to those living in a more deprived part of Glasgow. However, all children said that play areas were often not designed, equipped or maintained appropriately for them to be safe and inviting and ten children (from 29 in total) drew a play area or playground as somewhere that they did not enjoy playing. All children were risk aware and considered

play areas to be unsafe due to risk of injury or people. At the same time, children thought that play areas were boring.

Since the children's views were only compared across two areas, it is not possible to ascertain whether any differences in views are due to neighbourhood or deprivation. However, all children reported that they did not like incivilities and disrepair, and linked these features to different people (e.g. "neds", "junkies", "bad boys" etc) and areas. Graffiti and vandalism may not be a barrier for all children since they may be habituated to its presence, or not consider it unsafe. In general, those barriers reported by children living in the area of high social deprivation were of a more serious nature compared to those living in an area of low deprivation and included the presence of syringes and broken glass as well as recent murders.

#### ***6.1.4 What do adults think about the outdoor play provision in Glasgow?***

Research with maintenance men and mothers in Glasgow suggests that whilst the quality of provision is improving, it is marred by poor quality in some areas. Vandalism, underage alcohol consumption and youth disorder were suggested as barriers to the safe and healthy use of play areas. These problems were blamed on teenagers and a theme of 'youth vilification' was present in the research, which might lead to their increased social exclusion. Additionally, whilst the misuse of play areas was blamed on teenagers it was also blamed on a particular "culture" or "mentality" present amongst people of low social class, living in deprived neighbourhoods. Parents were very risk aware and said that strangers; risk of injury from needles, broken glass or equipment; and teenagers prevented them from allowing their children out to play. These findings are consistent with other research.

### **6.2 Cross-cutting themes of this research and their implications**

The main issue that this thesis investigated was whether access to good quality, outdoor play areas is socially patterned in Glasgow and what adults and children perceive to be the reasons for such patterning.

## 6.2.1 Deprivation amplification

As a whole, this thesis supports the model of deprivation amplification since, whilst there was not less provision in areas of high social deprivation, the quality of such provision was poorer and adults and children considered this poorer quality to be a barrier to their use of play areas.

### 6.2.1.1 Are deprived areas disadvantaged in terms of access to outdoor play areas? Objective data and perceptions.

By examining the provision of play areas objectively, this research suggests that there is greater provision of outdoor play areas in deprived areas in Glasgow. There were more than double the mean number of play areas per data zone when controlling for total population in areas of highest deprivation (measured by SIMDgla) compared to areas of low social deprivation (1.35 compared to 0.59 per 1000 persons, with a p-value of 0.004). Whilst the social patterning of provision was similar when controlling for the population of children, the mean numbers of play areas per 1000 children had large standard deviations and the variance was not found to be statistically significant. These measures of provision are sensitive to the errors caused by double counting of play areas and so the measures of mean network distance to the nearest resource and the percentage of data zones with at least one play area are more robust measures. Play areas in the most deprived areas were found to be on average 187.6m closer to the centroids of data zones than those in the least deprived areas. Additionally only 17.3% of data zones in the least deprived quintile of deprivation compared to 45.7% in the most deprived quintile of deprivation contained at least one play area.

However, as shown in Chapter 4, some children (Chapter 4), both in areas of high and low social deprivation, reported that they did not live close enough to a play area to be able to visit one unaccompanied. Additionally, in contrast to the objective measure of provision, some of maintenance men (Chapter 5) believed that there was a greater budget and therefore greater level of provision in more affluent areas of the city. It might be that size or poorer quality of these play areas affected their perception of access to facilities. Thus, although measuring

the provision of play areas objectively would suggest that there is not an effect of deprivation amplification, the perceptions of adults and children suggest that there may be poorer access to good quality play provision in some neighbourhoods.

#### **6.2.1.2 Are deprived areas disadvantaged in terms of the quality of outdoor play areas? Objective data and perceptions**

The objective quality audit discussed in Chapter 3 has shown that play areas in neighbourhoods with high social deprivation are of worse quality. There are more play areas in deprived areas with litter and glass (p-value < 0.000), damaged benches (p-value = 0.015), inadequate safety surfacing (p-value = 0.028), equipment with broken or missing parts (p-value < 0.000), and rust on climbing or sliding equipment (p-value = 0.006). Additionally there were more play areas in areas of low deprivation with litter bins (p-value = 0.007) and landscaping (p-value < 0.000). Play areas in areas of high social deprivation had on average 9.2 counts of positive features and 17 counts of negative features compared to 11.9 and 14.9 in areas of low social deprivation (ANOVA = 0.003 and 0.005). Thus, this supports the deprivation amplification hypothesis.

The social patterning of the quality of play areas found in the objective quality audit was echoed in the qualitative research with adults and children suggesting that quality was poorer in deprived areas. Children from the school in an area of high social deprivation suggested that play areas in areas with clean houses or a “clean scheme” may be of better quality since people may be more likely to look after the facility. There were however mixed views on whether vandalism would be more common in deprived areas since children were not sure who the perpetrators were and where they lived. Maintenance men thought that the quality of play areas was marred by misuse and vandalism and suggested that the quality would be worse in more deprived areas. Similarly, the limited research conducted with parents suggested that they thought that deprived areas had worse quality play provision since it was damaged through vandalism and, along with the maintenance men, they blamed the types of people living in poorer areas for the poorer quality of the environment.

## **6.2.2 Barriers to visiting outdoor play areas**

Whilst using objective measures to assess the quality of play areas meant that they could be compared accurately across quintiles of deprivation without bias, I did not weight any of the variables and equal value was placed on each aspect of safety or aesthetics that was assessed. Throughout the qualitative research adults and children reported barriers to the safe and healthy use of play areas and discussed what was important to them. By comparing the objective measures with the qualitative descriptions of barriers, it is possible to understand whether those variables that were measured objectively were considered important to parents and children, as well as whether those aspects of quality that reported as being salient to users varied by social deprivation.

### **6.2.2.1 Comparing objective and subjective measures of quality**

A total of ten children chose to draw a play area or playground as somewhere they did not enjoy playing. They suggested that play areas were not designed or maintained effectively for children to consider them safe and appealing. Children reported that broken glass was a barrier to their use of play areas and this was found to be more frequent in play areas with high deprivation when measured objectively. Litter was also considered a problem in that unclean play areas were deemed unsightly and unappealing by children. Whilst the maintenance men believed that litter in play areas was a problem, they also thought that it was widespread and unlikely to vary by social deprivation. This is similar to the objective results which show that whilst litter was high overall, in that 90% of play areas contained litter, it was found more often in play areas in deprived neighbourhoods.

Children suggested that vandalism was a barrier to visiting play areas and the maintenance men and parents believed that vandalism was more prominent in deprived areas and as such the quality of provision was worse. When measured objectively, broken equipment was more common in deprived areas, although the cause of such damage was not assessed, and as such it cannot be directly linked to vandalism. Whilst some children considered graffiti to be a barrier, others attending school in an area of high social deprivation were ambivalent towards it. Maintenance men thought that graffiti would be present in almost

all play areas across the city and this is reflected in the quality audit results in that graffiti was not found to vary by social deprivation, although it was frequent across all play areas.

Children were also concerned for their safety in visiting play areas. They considered some play areas to be dangerous in that they could fall off and hurt themselves or that the safety surfacing was not adequate. Inadequate safety surfacing was found more frequently in play areas in deprived neighbourhoods compared to areas of low deprivation during the quality audit, but there was no difference in the number of facilities with equipment over 6 feet tall.

No syringes were found by fieldworkers, and maintenance men also indicated that their presence was an infrequent occurrence. However, the mothers and children from an area of high deprivation reported them as a barrier to their use of play areas near to their home. It is not known what mothers and children based their perception on and whether the threat is real or perceived. It is possible that fear from needles could be based on prior experience, since even the presence of one syringe may be enough for parents to limit their children's future play. Also, some of the children mentioned experience of seeing or picking up needles in play areas which would suggest that, to some extent, the risk may be a real one. However, it is also possible that the level of risk was exaggerated or that their perceptions were influenced by others, for example by other parents or the media.

A number of the variables assessed during the quality audit were not discussed in the qualitative research including the presence of condoms, shaded areas, landscaping, art, drinking water, toilets and changing rooms and payphones. Whilst for some of these, it may be that they were not considered important factors when choosing a play area (e.g. shaded areas or drinking water), for others it might be that whilst they may make an impact on the quality of a play area, since they are not a common features of play areas in Glasgow, participants were not aware of them as issues e.g. the presence of condoms or the presence of changing facilities.



### **6.2.2.2 Barriers not covered by the quality audit**

For some of the barriers mentioned by adults and children, it was the association with their perpetrators that caused concern as well as their impacts on the quality of the provision. Children reported that “neds”, “gangsters”, “teenagers” “bad people”, “junkies” or “big bad boys” were to blame for the poor quality of play areas. These barriers relate to the composition of an area rather than its context which this thesis was designed to investigate. Although there were a few questions in the quality audit relating to the behaviours of people using the play areas, due to the time of day that play areas were audited, very few people were seen using the facilities and as such these issues were not investigated fully.

In line with their fear from the presence of syringes, children and parents were very risk aware in general. Mothers talked about the risk of injury, assault or abduction and were worried about the presence of strangers and teenagers. If parents’ fears about the risks of strangers prevent them from letting their children play, it is possible that, on their own, improvements to the quality of play areas, may not affect children’s use. A recent evaluation of play area improvements in England suggested that the introduction of play workers at play areas impacted on parents’ perceptions of safety more than any other aspect of play area quality (Wallace, Pye, Nunney, & Maybanks, 2009).

Both children and their parents also suggested that play areas were dangerous since children were at risk of injury from the equipment. However, children concurrently reported thinking that play areas were boring. Further consultation with children and parents may be needed to suggest ways in which play areas could be made suitable for them. However, there are implications for children’s health and development if all of the risk is removed from play areas. One of the benefits of play is that children can learn to assess risk, explore and test boundaries and challenge their bodies. Play areas provide a relatively safe environment for them to do this (Children’s Play Council, 2000). Furthermore, for those children who are allowed out to play, if they think that play areas are boring then some may find other more stimulating and exciting places to play. However these places could be more dangerous, for example building sites, the street or rivers (Moore, 1986).

### 6.2.3 Reasons for poor quality

The objective studies in this thesis did not set out to examine the possible reasons for misuse, however they were explored briefly during the qualitative research. From the quality audit, there were some variables which were representative of issues relating to the design of play areas and others relating more to the maintenance of play areas. These latter items are examples of how the contextual and compositional factors of an environment are linked since whilst the quality of play areas is a contextual issue, it is influenced, positively or negatively by those who live in the area through their use, misuse or maintenance of facilities.

Both adults and children in this research considered that vandalism and underage alcohol consumption caused the poorer quality of play areas in Glasgow. Teenagers were not only blamed for damaging equipment and leaving dangerous debris behind, such as broken glass or syringes, but they were also considered to be off-putting to other users of play areas. The theme of youth vilification was quite clear throughout the qualitative research and very few of the participants suggested that not all young people were at fault.

Similarly, much of the poor quality and barriers to using play areas that were explored during the qualitative research were perceived to be due the composition of the neighbourhood. For example, parents' main concern was the safety of their children, including safety from:

*“Traffic, adults, kids, you name it.”*

*“The public, the broken glass and the needles, to other kids and the ‘bad man.’”*

(Jenny and Mary - Mothers living in a deprived area of Glasgow)

The maintenance men thought that it the poorer quality of play areas was caused by the poor behaviour of people of a lower social class living in deprived areas. They suggested that there was a “culture” or “mentality” amongst these people which meant that they did not care or respect their neighbourhood enough to look after it. They felt that these behaviours were deep-rooted and ingrained in the culture of the perpetrators and as such suggested that they would be extremely difficult, if not impossible, to change.

Whilst the provision was greater in areas of high social deprivation, the quality was found to be poorer. Those aspects of aesthetics and safety which were found to be worse in play areas were ones which parents and children suggested were barriers to their use. Therefore, children living in deprived areas of Glasgow are subject to more barriers for the use of outdoor play areas. It is in these deprived areas that there may be more need for publicly available, safe and healthy spaces for play since private gardens may be smaller, or not available, and parents may not have the resources (in terms of time, transport or finances) to take their children to more formal groups or sports clubs.

### **6.3 Original contribution of this research**

This piece of work was a contextual examination of play areas in Glasgow. It considered play areas to be a health enhancing resource since they may facilitate physically active play and social interaction (Baranowski, Thompson, DuRant et al., 1993; Gomez, Johnson, Selva, & Sallis, 2004; Rich, DiMarco, Huettig, Essery, Andersson, & Sanborn, 2005; Sallis, Bauman, & Pratt, 1998). Physical inactivity amongst children is linked with poorer health in childhood and in later life and as such NICE have reasoned that there is, “a strong rationale for promoting physical activity” amongst this group (Biddle & Cavill 2007, pg.4). Since 23% and 31% of boys and girls in Scotland are not achieving the recommended 60 minutes of accumulated moderate-vigorous intensity physical activity (Scottish Executive, 2005), it is important physical activity remains on the research agenda.

The examination of the environment’s influence on people’s health and their ability to lead a healthy lifestyle has become the focus of recent literature (Department of Health Public Health Research Consortium, Lay, Power, Graham, & Merrick, 2006; Egger & Swinburn, 1997). In terms of physical activity research, NICE has noted that there is limited research available and has mostly been conducted in adults and is concerned with the design and walkability of neighbourhoods (Bauman & Bull, 2007; Biddle & Public Health Collaborating Centre for Physical Activity, 2007). Interventions at the environmental level have greater scope for reaching whole population groups compared to those based at the individual level and so further research is required in order to be able to design effective interventions with this objective in mind.

The thesis examined the provision and quality of play areas to assess whether they were patterned by social deprivation and whether there was a deprivation amplification effect. It then went on to explore what perceptions around provision and quality were important to adults and children and begin to explore possible reasons for such. It is one of the first pieces of research to examine play areas in this level of detail, bringing together a number of methods and areas of research to tell a rich narrative.

The work presented in Chapter 2 concerning the provision of play areas in Glasgow reinforces the few studies which have studied the socioeconomic distribution of play areas in Glasgow (Ellaway, Kirk, Macintyre, & Mutrie, 2007; Macintyre, Macdonald, & Ellaway, 2008a), Amsterdam (Karsten, 2002) the US (Cradock, Kawachi, Colditz, Hannon, Melly, Wiecha et al., 2005) and Canada (Gilliland, Holmes, Irwin, & Tucker, 2006; Somyer-Tomic, Hewko, & Hodgson, 2004), supporting the concept that deprived areas are not disadvantaged further by having poor provision of play areas. This research advances the previous literature since it included three different measures of area based deprivation, and three different measures of population, as well as using different measures of provision as a form of sensitivity analysis.

There are very few studies worldwide that have objectively assessed the quality of play areas (Cradock, Kawachi, Colditz et al., 2005; Powell, Ambardekar, & Sheehan, 2005; Suecoff, Avner, Chou, & Crain, 1999) or of other resources for physical activity (Crawford, Timperio, Giles-Corti, Ball, Hume, Roberts, Andrianopoulos, & Salmon, 2008; Miles, 2008; Molnar, Gortmaker, Bull, & Baka, 2004) and the research presented in Chapter 3 makes an original contribution to this limited area and is the first piece in the UK to assess the quality of play areas in this way. The findings of this research are similar to those previously mentioned in that the quality of play areas is generally poorer in areas of high social deprivation. This suggests that the poorer quality of facilities may offset the greater provision

One of the important findings from this research was that, despite using the best available data, 29% of the play area sites visited were not present or open due to their removal, closure, renovation, incorrect categorisation or double counting of facilities. This study has given an excellent example of the

importance and potential implications of ground truthing. Very few ecological studies ground truth their data (Paquet, Daniel, Kestens, Leger, & Gauvin, 2008; Suecoff, Avner, Chou et al, 1999) and this may impact on any significant or null relationships observed. In order to make recommendations for policy, it is vital that we have trust in our data.

This thesis also sought the views of children using a relatively novel technique for this field of research and the findings are an addition to the limited body of research examining children's perspectives of play and their local provision (Foster, 2007). An original contribution is the suggestion that children living in Glasgow have similar concerns about their neighbourhood and face similar barriers to using outdoor play areas as children living in other areas of the UK (Barnardo's, 2004; Children's Play Council, 2002; Foster, 2007; Thomas & Thompson, 2004) and/or world (Hume, Salmon, & Ball, 2005; Romero, 2005; Veitch, Bagley, Ball, & Salmon, 2006). Additionally this research compared the perceptions of children living in two socially contrasting areas, albeit with a small sample size, and suggests that children living in more deprived communities may face more and/or more serious barriers to outdoor play.

Finally, this thesis examined adults' perceptions of play provision in Glasgow. Choosing to speak to those responsible for the maintenance and design of play areas, as well as parents, in Glasgow gave a rich and unique insight into the issues surrounding play provision in the city. This work adds to the literature investigating parents' and adults' perceptions of their neighbourhood and outdoor play provision and reinforces reports in worldwide literature in developed countries that safety from strangers and teenagers is perceived as the most salient risk (Adams, Harvey, & Brown, 2008; Jenkins, 2006; Prezza, Pillioni, Morabito, et al., 2001; Timperio, Dalmon, Telford, & Crawford, 2005; Valentine & McKendrick 1997; Veitch, Bagley, Ball, et al., 2006).

An additional key contribution of this research relates to contextual and compositional factors of place or neighbourhood. Adults in this qualitative research spoke about how the context of an area (e.g. the quality of a play area) was due to the composition of the neighbourhood (e.g. those living there). They suggested that it is the culture or mentality of those living in socially deprived areas that caused them to behave poorly and misuse their environment. This

work is an excellent example of the idea that compositional and contextual factors are inextricably linked: “People make places, and places make people,” (Macintyre & Ellaway, 2003, p.26).

## 6.4 Limitations

This research has some caveats which are important to note. Firstly, this study investigated the provision and quality of play facilities with the premise that they would be health enhancing by providing opportunities for children to be physically active or to socialise. However, this might not be the case for everyone or for all types of provision. There are a number of things that may influence the uptake or maintenance of a physically active lifestyle. Of which, the provision and quality of play areas are only one. Aspects of the physical environment will interact with other aspects of the environment as well as with social, cognitive, physiological and individual factors to affect physical activity behaviour (Sallis & Hovell, 1990). Some children may not visit play areas and even of those who do, some might not be physically active there. Some of the more modern play areas that I visited within Glasgow contained sheltered seating areas, specifically designed for youngsters to congregate. It is doubtful that these would encourage physical activity, although they may promote socialising. The play areas might pose hazards to health of users of those who live near by, for example, the noise from children playing at a play area may influence the well being of local residents; play areas may be used at night by young people who might drink alcohol there, which might impact upon their own health as well as intimidate local residents; play areas might be of poor quality and safety thus children may injure themselves.

Secondly, the results presented in Chapter 2 regarding the location and distribution of play areas should be approached with caution since the results from ground-truthing a sample of the data indicated that 29% of play areas were not present or open. Whilst missing play areas were found in areas of high, medium and low social deprivation, it is not known whether this problem would be city-wide, or whether it would influence the direction of the relationship between provision and deprivation. However, using the measures of distance to the nearest facility, and whether or not data zones contained at least one play

area, limits the effects that double counting of play facilities would have on the analyses.

Thirdly, whilst the supplementary research discussed in chapters 4 and 5 suggests that the types of things which were worse in areas of high deprivation were those things which parents and children considered to be barriers, the weighting of all of the variables analysed in the quality audit were equal. It is unlikely that all of the aspects of aesthetics and safety would have an equal influence and they are likely to be more or less important to different groups. For example, some children may find broken equipment exciting or alternatively some people may be habituated to the presence of incivilities and may be ambivalent towards them. Additionally, for some people a play area may be the only local facility, and so it might be used in spite of its poor quality.

Fourthly, the use of play areas was not assessed and so it is not known whether the poor quality of play areas affects whether or not people visit them and what they do when they are there. Use of play areas could be measured with the System of Observing Play and Leisure in Youth (SOPLAY) (McKenzie, Marshall, Sallis et al., 2000). SOPLAY involves visiting play spaces and observing children playing. Using a coding framework, surveyors can note the numbers of children playing, their age, sex and ethnicity and as whether or not they are physically active. However, SOPLAY suggests using time sampling and making multiple visits per day on both weekdays and weekends to observe children. To do this for the 100 play areas included was outwith the scope of this study. However, the links between quality of play areas and their use are worthy of investigation.

Fifthly, the numbers recruited for the qualitative research were small, only included residents of Glasgow, and few parents were spoken to. However, the results obtained were similar to those from other countries.

Finally, whilst the multi-method approach used for this research was justified to gain a broad perspective of how play areas may impact upon health, it means that each area addressed has been smaller in scale than it would have been had it been the only aspect addressed.

## 6.5 Recommendations for Future Research

The quality audit tool used in this study should be adapted and made more applicable for Glasgow if it is to be used by policy makers to evaluate or prioritise improvement programmes. The photographs that were taken during the audit could be used with third parties to validate the tool or to improve the weighting of variables so that they represent the variables that are most important to users.

The tool could be used in natural experiments (Petticrew, Cummins, Ferrell, Findlay, Higgins, Hoy et al., 2005) as a means to evaluate the impacts of regeneration of a play area and to assess whether physical improvements have an effect on their use and physical activity levels of local children. Additionally, using available survey data (such as the Scottish Health Survey or Growing Up in Scotland Study) children's reported play, physical activity and use of play areas could be linked with information on the presence and quality of play areas. By measuring the physical activity levels of those at play areas, as has been done with school playgrounds (Cardon, Van Cauwenberghe, Labarque, Haerens, & De Bourdeaudhuij, 2008; Ridgers & Stratton, 2005), it may be possible to quantify the potential health benefits.

Future work is also required to further understand how people form their perceptions of their environment and how much their perceptions impact upon their behaviour.

## 6.6 Conclusion

Whilst there are more play areas in deprived areas, they are of worse quality and children living in deprived areas, who may have a greater need for free access to outdoor play areas, may face more barriers to their safe and healthy use. These barriers may also be more serious in nature than those found in less deprived neighbourhoods. As well as aspects of quality, the presence of teenagers, stranger-danger and risk of injury were also barriers to outdoor play. Adults in this research thought that misuse and vandalism were due to teenagers and the "culture" or "mentality" that had been instilled in them by their parents and society. If parents' concerns mean that children are not allowed to



play and those young people who are outside are vilified for being seen in the neighbourhood, then this may perpetuate parent's safety fears and concerns about moral parenting. It is important that play areas remain open, well maintained, and that they are promoted as safe and healthy places for play if we are to, as Plato suggests, persuade people to "*Avoid compulsion and let your children play.*"

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# Appendices

## Appendix A

### FACULTIES OF LAW AND FINANCIAL STUDIES AND SOCIAL SCIENCES ETHICS COMMITTEE

#### APPLICATION FOR ETHICAL APPROVAL

##### NOTES:

THIS APPLICATION AND ANY ACCOMPANYING DOCUMENTS MUST BE SENT ELECTRONICALLY TO  
a.lindsay@socsci.gla.ac.uk

THIS APPLICATION FORM SHOULD BE TYPED NOT HAND WRITTEN.

ALL QUESTIONS MUST BE ANSWERED. "NOT APPLICABLE" IS A SATISFACTORY ANSWER WHERE  
APPROPRIATE.

INTERNAL IDENTIFICATION NUMBER    SSL/04/

Project Title

Are there socio-economic and gender differences in the provision, use and perception of  
public, outdoor play areas? A case study in Glasgow.

Date of submission

23/09/05

Name of all person(s) submitting research proposal

Chloé Hughes

Position(s) held PhD student

Department/Group/Institute/Centre

MRC Social & Public Health Sciences Unit

Address for correspondence relating to this submission

**4 Lilybank Gardens**

**Glasgow**

**G12 8RZ**

Name of Principal Researcher (if different from above e.g., Student's Supervisor)

**Prof. Nanette Mutrie**

**Prof. Sally Macintyre**

Position held

**Professor of Exercise and Sport Psychology - Strathclyde University**

**Unit Director & Head of Social and Spatial Patterning of Health Programme**

### 1. Describe the purposes of the research proposed.

The overall aim of this project is to further our understanding of publicly available, outdoor playgrounds in Glasgow. We hope to determine whether there are socio-economic and gender differences in the provision, use and perception of public, outdoor play areas within Glasgow. This study will employ a mixed methods approach and comprises of 3 sub-studies. The purpose of these are discussed below:

#### STUDY 1

The purpose of this research is to investigate the location of outdoor, public playgrounds in Glasgow city, with particular reference to social deprivation.

#### STUDY 2

The purpose of this study is to investigate the quality and use of outdoor, public playgrounds in areas of Glasgow city of high, medium and low social deprivation.

#### STUDY 3

This study aims to investigate the views of primary school children, their parents and local maintenance people about what outdoor play areas should be like and whether there are any barriers to their safe and healthy use.

The health implications of physical inactivity are well documented and linked to an increased risk of hypertension, Type II diabetes, coronary heart disease (CHD), cardiovascular disease, stroke and osteoporosis as well as some cancers (CMO, 2004). This has led to rising concern over the low levels of physical activity amongst children, with one-third and one-quarter of primary aged girls and boys in Scotland not meeting the current recommendations of sixty minutes of accumulated moderate-vigorous physical activity per day (Scottish Health Survey, 1998). It is possible that these guidelines could be met through physically active play and public, outdoor play areas could provide an ideal facility for this. However, little is known about these play areas.

Preliminary research on the location of playgrounds in Glasgow has indicated that there are significantly more playgrounds in areas of lower SES in Glasgow per 1000 children (Kirk et al, 2003).

However, we do not know what the quality of these playgrounds is like or what children and adults think about outdoor play and its provision. Ultimately, these factors may have an influence upon the use of playgrounds and levels of children's physical activity.

We hope to further our understanding of these issues and, through a mixed methods approach, investigate the socio-economic and gender differences in the provision, perception and use of outdoor, public play areas. We intend to use Glasgow city as a case study.

## Appendix A

2. Please give a summary of the design and methodology of the project. Please also include in this section details of the proposed sample size, giving indications of the calculations used to determine the required sample size, including any assumptions you may have made. (If in doubt, please obtain statistical advice).

The study will employ a mixed methods approach including mapping, observation of playground quality and playground use, interviews and focus-groups in order to investigate the socioeconomic and gender variations in the provision, use and perception of public outdoor play provision.

### STUDY 1 - Mapping Study - to be conducted by Chloé Hughes

All publicly available, free-access play areas in Glasgow will be mapped, based on information from Glasgow City Council and Glasgow Housing Association. The distribution of play areas will be examined against area deprivation as measured by the Scottish Index of Multiple Deprivation or Carstairs Scores.

### STUDY 2 - Quality and Use Study - to be designed by Chloé Hughes and data to be collected by Chloé Hughes and student fieldworkers

Using the map produced during STUDY 1 and details of school clusters, three areas of Glasgow will be chosen based upon their deprivation levels; one in an area of high social deprivation, one in an area of moderate social deprivation and one in an area of low social deprivation. Playgrounds within each of these areas will be visited for quality and use observation. If it is not feasible to visit all of the play areas within each of the three areas, then a random sample will be chosen. During the quality observation of the play areas, a check-list will be used. Ideally, a reliable and validated check-list for use within the UK will be used to assess the safety and play opportunity of the play area. However, it may be required that a check-list is generated or adapted for use within Glasgow. Photographs of the play areas will be taken to aid analysis. The use of the play areas will be assessed using varied time-sampling (e.g. weekday, weekend day, morning, afternoon, evening) and a check-list will be used to determine numbers of children, their sex and approximate age. Additionally, the types of activities that children are involved in will be noted, as well as whether they are using the equipment provided and whether they are accompanied by an adult. Children will not be identified during this process, or included in any photographs.

### STUDY 3 - Public Perception of Playgrounds - to be conducted by Chloé Hughes

Children and adults' views of play and playgrounds will be sought.

#### i) Children's Views

Since children are the target users of play areas, it is important that their views are assessed to determine what influences their use of play areas close to their home as well as to what extent they value outdoor play. These views will be revealed via small focus groups and activities based on a draw-and-write technique (HEBS, 1998). Children in Primary 6 (aged 10-11 years) were chosen for this study as we anticipated that they would have experience of visiting playgrounds, accompanied by an adult, as well as on their own or with friends. We anticipated that by this age, the children would have some part in the decision making process of where they played. Additionally, the draw-and-write technique has been used successfully with this age group of children.

Children will be recruited from three primary schools, one in each of the areas identified in STUDY 2. It is proposed that between 3 and 9 focus groups will be conducted with primary children. During the focus groups, children will be asked to discuss their opinions on outdoor play and play provision in their area. They will be asked what influences whether they visit play areas and what they like and dislike about play areas. Gender and socio-economic differences will be investigated. Discussion will be generated through simple exercises such as looking at photographs of play areas, or listing and ordering advantages and disadvantages of visiting play areas. Additionally, either as part of a class activity or focus groups exercise, children will be asked to draw a picture of a play area that they would like to visit and then write a few sentences about why they would like to visit it and what they would do if they visited it. The draw-and-write class activity will last up to one hour, depending on the class structure, and the focus groups with children, which will also be conducted in schools, will last approx 30 minutes.



### ii) Parental Views

Parents will be recruited at the same time as the school children, from three primary schools (one in each of the areas identified in STUDY 2). Between 6 and 12 semi-structured interviews will be conducted with the parents. During the parental interviews, parents will be asked about their opinions of outdoor play and the provision in their local area. The benefits and barriers of outdoor play for their children and what they want from play provision will be investigated. Socio-economic and child-gender differences will be investigated. Photographs of playgrounds in Glasgow may be used to generate discussion.

### iii) Maintenance People's Views

Glasgow City Council (GCC) playground maintenance employees will also be recruited from the main office of GCC. Between 2 and 6 semi structured interviews will be conducted with the maintenance employees in order to seek their opinions of outdoor play provision. Their perceptions of how the playgrounds are used and by whom, as well as their experiences of misuse and/or vandalism will also be sought. Again, photographs of playgrounds in Glasgow may be used to generate discussion.

The adult interviews will take place at a location convenient for them (school, work or home) and will last up to 45 minutes.

Chloé Hughes, who will carry out the qualitative research, has already undergone a Disclosure Scotland police check and has been granted an enhanced disclosure.

3. Describe the research procedures as they affect the research subject and any other parties involved.

### STUDY 1 - Mapping Study

Information regarding outdoor, public play areas in Glasgow will be sourced from GCC and GHA, with their permission.

### STUDY 2 - Quality and Use Study

Any people using the play areas whilst they are under investigation will not be identified, and although care will be taken to try to ensure that photographs of the playground do not contain visitors in an identifiable way, this may occur in some circumstances. However, since photographs will be taken using a digital camera, they can easily be deleted and re-taken. Chloé Hughes and student fieldworkers will not take an active role in the playground nor approach any of the visitors. They will answer questions regarding the research and their actions if approached and will carry ID confirming that they are students studying playgrounds.

### STUDY 3 - Public Perception of Playgrounds

#### i) Children's Views

The draw and write exercise with pupils will ideally be conducted in a classroom during class time, with the negotiation of the class and head teacher of each of the primary schools. Pupil focus groups will be conducted in the school environment, which all participants will be familiar with. The approach taken in the focus groups will be relaxed and informal to generate conversation and make participants feel at ease. Small tasks will be used to generate discussion, but these will be made suitable for the children's cognitive abilities.

In order to access schools and recruit children and parents in this way, the researcher will contact the Local Education Authority to seek permission to contact the schools. A letter will be sent to head teachers outlining the nature of the study and asking for permission to access pupils. The local active schools co-ordinator will also be contacted and informed of the study. Pupils will be given information sheets about the study and asked if they wish to participate. As the children will all be under 16 years old, parental consent will also be required. Potential participants will be asked to give their parents/guardians a letter, information sheet and consent form. The signed consent sheets will be returned to the researcher. All children in Primary 6 in each school will have the opportunity to take part in the research study and they can all complete the draw-and-write class-based activity. The researcher will not have access to the children's work, unless they have parental consent. If there are too many children who want to take part in the focus group sessions, then a random sample will be selected. Negotiation with teaching staff will be required to organise suitable timing of the events to ensure minimum class disruption and that low demands are placed on teaching staff.

#### ii) Parental Views

Parental information sheets will be sent out with the children's information sheets, asking if they would like to participate in the parental interviews. Signed consent forms will be returned to the researcher. Again, if more parents wish to take part in the interviews than is feasible to interview, a random sample will be selected. Parental interviews will be conducted at a time and place (e.g. school or home) that is convenient for them and an informal and conversational approach will be taken to make participants feel at ease.

#### iii) Maintenance People's Views

Maintenance staff will be recruited from Glasgow City Council's main office. Initially, line managers will be contacted for permission to access their staff. Information sheets will be given to all playground maintenance staff with consent forms which will be signed and returned to the researcher. Staff will be told that participation is completely voluntary. The interviews with the Glasgow City Council playground maintenance employees will be conducted in a similar way to the parental interviews and will take place either at the Glasgow City Council main office or at another convenient location, such as the research unit where I am based. A random sample will be selected if a high number of employees wish to take part in the research.

Permission will be sought to audiotape interviews and focus groups.

4. What in your opinion are the ethical considerations involved in this proposal? (You may wish for example to comment on issues to do with consent, confidentiality, risk to subjects, etc.)

### STUDY 2 - Quality and Use Study

Visitors to the playground may be identifiable in photographs that are taken of the play areas, but since the research will be completed using a digital camera, photographs can be easily deleted and retaken if the researcher were required to do so. Chloé Hughes and fieldworkers will not take an active role in the playground.

### STUDY 3 - Public Perception of Playgrounds

#### i) Children's Views

Pupils recruited for this study will be under 16 years of age and thus, as children, they should be considered a vulnerable group. This may be emphasised in research due to their lack of knowledge, economic power and physical strength in comparison to adults. For this reason, the researcher must always be aware of various duties and obligations that carrying out research with children entails. The researcher will at no time place the child in a situation whereby they may feel powerless and will acknowledge the children's ability to abstain from discussing things that they may not want to. Additionally, the researcher must make every effort to dissolve the power relationship between herself and the participants, which will be emphasised when conducting research with children. The researcher will try to make participants feel at ease and ensure that activities in the focus groups are explained fully and aimed at the abilities of all involved.

It is necessary for the children taking part to gain consent from their parent/guardian, as they are under 16 years of age. Information sheets and parent consent forms will be sent home for a parent/guardian to complete. On return of the forms, only those children with permission from their parents/guardians will be allowed to volunteer. However, child consent is also sought and children will be made aware that they do not have to take part and that even with parental consent, they can still decide not to volunteer. Additionally, participants will be assured that they can withdraw at any time.

It is intended that pupil focus groups and activities will take place within primary schools. Issues of confidentiality will inevitably be raised in a focus group setting. This may be emphasised as the children will know one another and may find it difficult to leave thoughts that were raised during the discussion behind them. Discretion will be emphasised at the beginning of the focus group in that their peers' feelings and views should not be discussed out with the focus group. Additionally, the topic of the focus groups will be designed so that children do not have to discuss personal experiences if they do not wish to. Furthermore, the researcher must make sure that the children understand that their drawings will be used for research purposes, distinct from other class work. They will not be graded in any way and they will not be returned.

Adults and children recruited will be assured that all information will be rendered anonymous and that any subsequent reporting of the information will be chosen carefully so as to respect the anonymity of the participants. The identity of the schools will also remain anonymous in all reporting of the project. It is hoped that these measures will reassure adults and children who may be worried about the implications of their participation. All participants will be made aware that the researchers are not in a position to alter or redevelop any current play provision.

Risks and harm to subjects are minimal in this research study. No invasive procedures will be used and questions will not be worded in an invasive way. At most, participants may feel embarrassed to talk about their views, but everyone will be assured that they do not have to answer any questions that they do not want to. In addition, if during the focus groups, a child discloses that he/she may be at serious harm from others, the researcher will discuss with the child the best way to inform appropriate adults or authorities in order to deal with the situation. Additionally, if required, pupil respondents can be given information on services that they can access for confidential advice, e.g. Childline.

## Appendix A

5. Outline the reasons which lead you to be satisfied that the possible benefits to be gained from the project justify any risks or discomforts involved.

The health benefits of outdoor play are potentially great. However, we know very little about the provision or public perceptions of outdoor play areas. Since these factors may influence children's safe and healthy use of play areas and possibly their physical activity levels, it is important that they are assessed if we want to increase physical activity levels in children. We know very little about how play fits into children's lives and it is hoped that this research may help to inform researchers, policy makers, play workers and playground designers about the issues that people think are important with regard to outdoor play.

Additionally, there is very little information regarding the quality of outdoor play provision or the levels of use. It is hoped that this study may be used to enhance our knowledge in this area, which may ultimately help to inform interventions or policy makers as well as physical activity promotion experts and play workers.

## Appendix A

6. Who are the investigators (including assistants) who will conduct the research and what are their qualifications and experience?

***Chloé Hughes***

BSc (Hons) Physiology & Sports Science, University of Glasgow. As an honours student, Chloé carried out research involving measuring physical activity in children aged from 3 to 12 years. She will undertake interview and focus group training and intends to pilot her topic guides prior to commencing the fieldwork. Chloé has undergone a police check and has been granted an enhanced disclosure by Disclosure Scotland.

***Prof. Nanette Mutrie DPE MEd PhD***

Nanette is a professor of exercise and sport psychology at Strathclyde University. She has over twenty years of experience of supervising student projects. She is a former chair of the Glasgow University IBLS ethics committee.

***Prof. Sally Macintyre OBE BA MSc PhD FRSE FmedSci***

Sally is an experienced researcher who has undertaken and supervised a range of qualitative research in the community and has mapped community based resources.

***Student research assistants***

University students will be recruited from Glasgow and/or Strathclyde University as fieldworkers for STUDY 2 only. They will be trained fully on how to use the required check-lists and on safety aspects. The research results for this part of the study may be used for their university coursework and students will have academic supervisors within their own institutions. If required students will undergo a Disclosure Scotland check.

7. Are arrangements for the provision of clinical facilities to handle emergencies necessary? If so, briefly describe the arrangements made.

**Within Schools/workplaces**

The researcher will familiarise herself with each school's standard emergency procedures and these will be followed in the event of pupil illness or accident during the focus groups. Any emergencies will be reported to the appropriate member of staff.

**In Playgrounds**

The researchers will not play an active role in the playground and should they witness any accidents involving individuals out with the research team they will exercise the same duty of care as would a normal citizen. Researchers will carry mobile phones should they be needed to call for emergency assistance.

8. In cases where subjects will be identified from information held by another party (for example, a doctor or hospital) describe the arrangements you intend to make to gain access to this information including, where appropriate, which Multi Centre Research Ethics Committee or Local Research Ethics Committee will be applied to.

N/a

9. Specify whether subjects will include students or others in a dependent relationship.

N/a

## Appendix A

10. Specify whether the research will include children or people with mental illness, disability or handicap. If so, please explain the necessity of involving these individuals as research subjects.

Children from mainstream primary schools and their parents/guardians will be recruited for this study as we are interested in investigating children and adults' views upon play and outdoor play provision.

11. Will payment or any other incentive, such as a gift or free services, be made to any research subject? If so, please specify and state the level of payment to be made and/or the source of the funds/gift/free service to be used. Please explain the justification for offering payment or other incentive.

No gift or incentive will be given, however refreshments may be offered during interviews or focus groups.

12. Please give details of how consent is to be obtained. A copy of the proposed consent form, along with a separate information sheet, written in simple, non-technical language MUST ACCOMPANY THIS PROPOSAL FORM.

In order to gain initial access to parent and child respondents, the permission of the Local Education Authority and head teachers will be sought. All potential pupil respondents will be issued with an information pack containing a letter to parents, a child information sheet, a parental information sheet and a consent form (please see attached). Parental consent will be sought initially. Once parental consent has been given for the children to take part in the research, individual pupil respondents will be asked to read and sign a pupil consent form before taking part. Once parental consent has been given for their own participation, they will be contacted to arrange an interview date and time.

Information sheets and consent forms will be given to the Glasgow City Council employees responsible for maintaining the playgrounds in Glasgow (please see attached), with permission from the line manager. Once returned, participants will be contacted to arrange a suitable time for an interview.

In any instances whereby consent has been given, but respondents later wish to withdraw from the study, any relevant data will be destroyed.

13. Comment on any cultural, social or gender-based characteristics of the subject which have affected the design of the project or which may affect its conduct.

As we are investigating socio-economic differences in the perceptions of play and outdoor play provision, we will sample from three areas in Glasgow that differ socio-economically. Additionally, we will try to obtain equal numbers of boys and girls in the focus group research in order so that we can investigate gender differences in the perception of outdoor play areas. Furthermore, children in primary 6 (10-11 years) have been chosen for this study as similar research techniques have shown to be successful with this age group of children and we anticipate that this age group of children will be taking part in the decision making process of where they play, both whilst accompanied by an adult and/or on their own

## Appendix A

or with friends.

14. Please state who will have access to the data and what measures which will be adopted to maintain the confidentiality of the research subject and to comply with data protection requirements e.g. will the data be anonymised?

Only Chloé Hughes, Sally Macintyre and Nanette Mutrie will have access to the tapes and transcripts of the interviews and focus groups. The names and contact details of the participants will be kept in hard copy only and will be stored in a locked cabinet, separate from tapes and transcripts in order to maintain confidentiality. All participants will be given pseudonyms prior to the research analysis. Transcripts will also be stored on a network computer which requires a password in order to gain access. Tapes will be stored for 10 years in the MRC Social and Public Health Sciences Unit, in accordance with the MRC 'Good Research Practice' guidelines. During this time, only legitimate researchers will have access to these. The information sheets also make the participants aware that only the research team will have access to the tapes and transcripts.

Data from STUDY 2 will also be used by student researchers recruited to help with fieldwork. This may be used as part of their university coursework. This data will not have any identifiable information about the visitors of the playground.

15. Will the intended group of research subjects, to your knowledge, be involved in other research? If so, please justify.

Not to our knowledge

16. Date on which the project will begin .....September 2005..... and end .....October 2007.....

It is planned that playground auditing will take place in the Autumn-Winter 2005-2006 and that the qualitative research will be conducted in the spring-summer of 2006.

17. Please state location(s) where the project will be carried out.

Playgrounds within Glasgow city will be visited. Primary schools within different areas of Glasgow city will be invited to take part.

18. Please state briefly any precautions being taken to protect the health and safety of researchers and others associated with the project (as distinct from the research subjects) e.g. where blood samples are being taken

MRC Risk Assessment forms will be completed and safety procedures will be discussed with project supervisors and staff in participating schools. Neither Chloé Hughes nor the undergraduate researchers will expose themselves to potentially risky situations (such as visiting playgrounds after dark) and if necessary they will be accompanied. They will use a Communicare lone working telephone support device which monitors travel whereabouts and has a panic button facility, carry mobile phones and leave information of their whereabouts with a responsible adult. If Chloé Hughes or the undergraduate researchers find themselves in a potentially risky situation, then they will remove themselves from this area as soon as possible and contact the emergency services, if necessary.

## Appendix A

Name\_\_\_\_\_Chloe Hughes\_\_\_\_\_ Date \_\_\_\_23/09/05\_\_\_\_\_  
(Proposer of research)

Where the proposal is from a student, the Supervisor is asked to certify the accuracy of the above account.

Name\_\_\_\_\_Prof Nanette Mutrie\_\_\_\_\_ Date \_\_\_\_23/09/05\_\_\_\_\_  
(Supervisor of student)

COMMENT FROM HEAD OF DEPARTMENT/GROUP/INSTITUTE/CENTRE

Chloe has experience of working with children, and both supervisors have experience of ethics issues and consideration of personal safety. This research Unit has extensive experience working in field settings with children and in schools, and of directly observing features of local environments. Our fieldwork support team will provide guidance on personal safety and research governance.

Name \_\_\_\_\_Sally \_\_\_\_\_Macintyre\_\_\_\_\_Date  
\_23/09/05\_\_\_\_\_

(Head of Department/Group/Institute/Centre)

Send completed form to

Aileen Lindsay at a.lindsay@socsci.gla.ac.uk



## Section A - Application to Undertake Research

## Category 1

## Institutional Externally Funded

Application for undertaking research in Glasgow City Council, Education Services

1	Name of the incorporated body you represent (ie University, College etc)
	Medical Research Council, Social and Public Health Science Unit (SPHSU), University of Glasgow
2	Names and designations of the applicants (the first name entered should be the coordinator/director/head of the project)
	<p><b>Supervisors:</b></p> <p>Prof. Sally Macintyre – Unit Director &amp; Head of Social &amp; Spatial Patterning of Health Programme, SPHSU.</p> <p>Prof. Nanette Mutrie - Professor of Exercise &amp; Sport Psychology at Strathclyde University</p> <p><b>Student Researcher:</b></p> <p>Chloé Hughes - PhD student, SPHSU.</p> <p>Chloé Hughes will carry out the research under the supervision of Prof. Macintyre and Prof. Mutrie.</p>
3	Sources and total amount of <b>funding available</b> or <del>applied for</del> ( <i>delete as appropriate</i> )
	<p>The research is funded as a PhD scholarship by the Chief Scientist Office at the Scottish Executive</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;">£3075 – whole project</div>
4	<del>Anticipated</del> or <b>actual</b> amount of funding ( <i>delete as appropriate</i> ), method and frequency of payments (eg 3 equal annual payments of £X)
	<p>2005/2006: £800</p> <p>2006/2007: £1375</p> <p>TOTAL : £2175</p>
5	Anticipated timescale of project
	<p>Start: Oct 2005</p> <p>Finish: Sep 2007</p>
6	Base or location of project ( <i>this will normally be the address for correspondence</i> )

## Appendix B

MRC Social & Public Health Sciences Unit  
4 Lilybank Gardens  
GLASGOW  
G12 8RZ

### 7 Title of Research Project

**Are there socio-economic and gender differences in the provision, use and perception of public, outdoor play areas? A case study in Glasgow.**

### 8 Abstract: (in not more than 500 words give a synopsis of what the project is about, {including any hypotheses} and how you intend to conduct it, including methodology.

You may attach a typewritten abstract in this form; if so enter Abstract Attached in the space below.

This study is part of a mixed methods project aiming to further our understanding of outdoor play provision.

#### **Aim:**

To determine whether there are socio-economic and gender differences in what children and parents think about public, outdoor playgrounds and whether there are barriers to their safe and healthy use.

#### **Background**

The health implications of physical inactivity are well documented. This has lead to rising concern over the low levels of physical activity amongst children, with one-third and one-quarter of primary aged girls and boys in Scotland not meeting the current recommendations. It is possible that outdoor play areas could provide an ideal facility for active play and physical activity. However, little is known about what people think about these play areas. By assessing the views of parents and children, we hope that we can further understand factors which may encourage or deter the use of outdoor play areas and ultimately make suggestions for improvements in the current provision and inform policy. We also hope that the primary children involved will benefit from thinking about their environment, health and physical activity as well as enjoy the research experience.

We intend to investigate the views of parents and Primary 6 children attending three different primary schools within areas of Glasgow with low, moderate or high social deprivation.

## Appendix B

### i) Children's Views

Children's views will be sought through group discussions and short activities. A 'draw-and-write' exercise (HEBS, 1998) will be conducted ideally in a classroom during class time, with the agreement of the class teacher and head teacher of each of the primary schools. Focus groups with pupils will also be conducted in the school environment and the approach taken will be relaxed and informal to generate conversation and make participants feel at ease.

### ii) Parental Views

Interviews with parents/guardians will be conducted at a time and place (e.g. their home or the SPHSU offices) that is convenient for them and an informal and conversational approach will be taken to make participants feel at ease.

### Recruitment

With consent from head and class teachers, Primary 6 pupils will be given information sheets about the study and asked if they wish to participate. Parental consent will also be sought and potential participants will be asked to give their parent/guardian a letter, information sheet and consent form. The signed consent sheets will be returned to the researcher or to the school. All children in Primary 6 in each school will have the opportunity to take part in the research study and they can all complete the draw-and-write class-based activity, however the researcher will not have access to the children's work, unless they have parental consent.

Information sheets for parents/guardians will be sent out with the children's information sheets, asking if they would like to participate in an interview. Signed consent forms will be returned to the researcher or to the school. If more children or parents wish to take part in the research than is feasible, a random sample will be selected. (496 words)

## Appendix B

- 9 Form of project output (Cite the major form/s of output anticipated eg research report[s]; curriculum material; journal articles; book etc. In the case of reports cite primary destination[s] of such documentation).

This research will form part of a PhD thesis and we intend that aspects of the research will be published in academic journals and presented at conferences.

- 10 Access and facilities being requested from Glasgow City Council, Education Services (List the type of data required, the names of individual establishments if known and the category of personnel eg staff; pupils; students; parents etc with an estimate of numbers, if relevant).

With consent from Glasgow City Council, Education Services and head teachers, we wish to access **three primary schools** in Glasgow: one in an area of high social deprivation, one in an area of moderate social deprivation and one in an area of low social deprivation. These three areas will be selected from a mapping study that will be completed prior to this part of the project. When the individual establishments have been selected, we can inform you of the details, if required.

In each school we would like to recruit Primary 6 children and their parent/guardian. We intend that every primary 6 child in each primary school has the opportunity to participate in the research and would like to conduct the following in **each school**:

- *A class-based 'draw-and-write' activity session in **each** of the Primary 6 classes in **each** of the schools.*

Children will be asked to draw a playground that they would like to visit and write a little bit about why they would choose to visit it and what they would do there.

- *Between 1 and 3 focus groups (with 3-5 children) in **each** school.*

Short activities such as responding to photographs of playgrounds and listing benefits and barriers of visiting playgrounds will be used to generate discussion.

Consultation with head teachers and class teachers will be maintained in order to minimise class disruption and demands placed on teaching staff.

Additionally, we would like to recruit parents/guardians of Primary 6 children and conduct between 2 and 4 parental interviews in **each** of the 3 areas of Glasgow. These interviews will take place at a convenient location such as their home or the unit where Chloé Hughes is based.

- 11 Any other information (include below any further information you believe relevant to this application).

### About the Applicants

Chloe Hughes is a postgraduate student undertaking research as part of her PhD. She gained her

## **Appendix B**

first degree in Physiology & Sports Science from Glasgow University during which she undertook research measuring physical activity of primary aged children in schools and hospital. She has experience of working with children, parents and teaching staff. Additionally, she has undergone a police check and has been granted an enhanced disclosure from Disclosure Scotland. Chloé will design and carry out all of the fieldwork in this study.

Chloé will be supervised throughout this project by Prof Sally Macintyre and Prof Nanette Mutrie. Sally is an experienced researcher and has undertaken and supervised a range of qualitative research in the community. Nanette is a professor of sport and exercise psychology at Strathclyde University and has over twenty years of experience in supervising student projects.

The MRC Social & Public Health Sciences Unit, where Chloe is based, has numerous researchers with extensive experience in qualitative research with children and young people and in school-based studies. When designing the research, Chloe will benefit from the expertise of an advisory committee with Dr Helen Sweeting, Prof. Patrick West and Alice Maclean, as well as her supervisors. Nanette Mutrie is currently conducting research encouraging physical activity in obese children in primary schools in Glasgow with the Glasgow Physical Activity Forum and her expertise and contacts in this area will be beneficial when conducting fieldwork.

### **Ethical Considerations**

All pupils and parents will be assured that participation in the research project is completely voluntary and that they may withdraw at any time. Participants will be informed that the researchers will not be able to make any direct changes to current play provision. Additional consent will be sought to tape-record focus groups and interviews, and only Chloé Hughes, Sally Macintyre and Nanette Mutrie will have access to the tapes and transcripts of the interviews and focus groups. The names and contact details of the participants will be kept in hard copy only and will be stored in a locked cabinet, separate from tapes and transcripts in order to maintain confidentiality. All participants will be given pseudonyms prior to the research analysis and transcripts will also be stored on a network computer which requires a password in order to gain access. Tapes will be stored for 10 years in the MRC Social and Public Health Sciences Unit, in accordance with the MRC 'Good Research Practice' guidelines. During this time, only legitimate researchers will have access to these. In any reporting of the research, quotes from interviews or focus groups will be chosen carefully in order not to compromise participants' confidentiality or reveal their identity. Before commencing fieldwork ethical clearance will be obtained from Glasgow University's Law, Business & Social Science Ethical Committee. Additionally, Chloé Hughes will complete a risk assessment and will at no time put herself or others at unnecessary risk. On entering a primary school, Chloé will familiarise herself with the school's emergency procedures and follow them should any event arise.

It is hoped that this research can be made part of each primary's health promoting school initiative and that project work in classes may be influenced by the physical activity research. In addition, pupils should benefit from thinking and talking about their environment, health, physical activity and

## Appendix B

play. Chloé Hughes will continually liaise with teaching staff throughout the project to minimise class disruption and staff burden. Chloé will offer to disseminate her research after analysis to the children, teachers and parents. Overall, it is hoped that the participants enjoy the research experience.

### 12 Declaration

I certify that the information given in this section is to the best of my knowledge complete and accurate.

*Signature of Applicant:*

Chloé Hughes

*Date:*

23/09/05

*Signature and designation of  
staff member/agent authorised  
to contract on behalf of the  
institution:*

Prof Sally Macintyre

*Date:*

23/09/05

## Appendix C

### Details of Email sent:

At 12:25 PM 8/4/2005 +0100, Chloe Hughes wrote:

Hi,

My name is Chloe Hughes and I'm a PhD student studying in Glasgow (supervised by Prof Sally Macintyre & Prof Nanette Mutrie) looking at play provision in the city. I'm hoping to audit the **quality** of the public outdoor playgrounds in Glasgow, UK, and wish to include safety aspects as well as the quality of the play opportunity that the facilities offer and more general aspects of cleanliness and aesthetics. I'm also looking to do some measurement of the **use** of the playgrounds using time sampling (looking at numbers of children, their approx age, sex, ethnicity as well as what kind of activities the children are involved in and whether or not they are using the equipment).

I'm emailing you as a researcher or someone with knowledge in this field for a little bit of help! What I'm looking for is any checklists that cover these aspects of playgrounds that could be adapted to suit Glasgow or the UK and our specific research questions. If any of you have used or developed a check list that could help me, I'd hugely appreciate it if you could please send me the details of it? If you know someone else that could help, could you please pass on this email to them and if you wish any more information on the project, please do not hesitate to contact me.

Thanks very much for you time,

Chloe Hughes

\*\*\*\*\*

Chloe Hughes  
MRC Social & Public Health Sciences Unit  
University of Glasgow  
4 Lilybank Gardens  
Glasgow  
G12 8RZ

Email: [chloe@msoc.mrc.gla.ac.uk](mailto:chloe@msoc.mrc.gla.ac.uk)

Website: [www.msoc-mrc.gla.ac.uk](http://www.msoc-mrc.gla.ac.uk)

Original Play Across Boston Survey



1. Rec ID# \_\_\_\_\_

2. Name of Site \_\_\_\_\_

3. Address of Site \_\_\_\_\_

4. Day of Week (circle one)

M      T      W      Th      F      S

5. Date (Month /day /year)    \_\_\_\_/\_\_\_\_/\_\_\_\_

6. Time (Circle closest hour)

8am    9      10      11      12pm    1

2      3      4      5      6      7pm

7. Observer Initials \_\_\_\_\_

8. Instrument ID code \_\_\_\_\_

## General Areas

**Remember move around the perimeter of the entire facility to complete this section**

Starting Point:

	Item Description	Almost None	A little	Moderate	A lot
	(Circle the number that best describes what you see in this area)				
9.	Dog Feces	1	2	3	4
10.	Litter/Trash including paper, cans, wrappers	1	2	3	4
11.	Litter/Natural including leaves, branches	1	2	3	4
12.	Glass-including bottles, broken glass	1	2	3	4
		<b>None</b>	<b>(&lt;10% of area)</b>	<b>(10-19% of area)</b>	<b>(20% or more of area)</b>
13.	Graffiti (excluding murals/works done by artists who sign their work)	1	2	3	4
		<b>Yes</b>	<b>No</b>		
14.	Needles/Syringes, drug related litter	1	2		
15.	Condoms/Condom wrappers	1	2		
16.	Is lighting available that appears to be intact?	1	2		
17.	Are shaded areas available (e.g., under trees, structures)?	1	2		
18.	Is the area under construction or renovation?	1	2		
19.	Are garbage cans present?	1	2		
20.	Are garbage cans overflowing?	1	2		
21.	Are signs present that identify site including the name of the site, the organization responsible for the site, or the rules of use for the site?	1	2		
	<b>Sidewalks/Pathways</b>	<b>Yes</b>	<b>No</b>		
22.	Are there sidewalks or pathways? (Do not include trails that are purposefully left "natural")	1	2		
23.	Large portions (20% or more) of the sidewalk is damaged, defective or deteriorated	1	2		

<b>Pathways: Ramps/Stairs</b>		<b>Yes</b>	<b>No</b>		
24	Are there ramps or stairs on the paved areas of the facility that are used for access to the site?	1	2		
25	Flat surfaces are continuous and have <b>just a few</b> cracks, holes or depressions and/or things you can trip over such as rocks or roots	1	2		
<b>Benches</b>		<b>Yes</b>	<b>No</b>		
26	Are there benches or other forms of seating available?	1	2		
27	Do many (20% or more) of the benches have parts of the sitting surface are broken or missing, chipping paint, exposed bolts or a combination of the above?	1	2		
<b>Landscaping/Environment</b>		<b>Yes</b>	<b>No</b>		
28	There is landscaping that may include trees, bushes, plants (real or fake)?	1	2		
29	Are there murals, sculpture, or other pieces of art in the area?	1	2		
<b>Accessibility</b>		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
Remember: If I was blind, had crutches, in a wheelchair, or if I couldn't understand that well, could I use this site/area/bathroom?					
30	Is this area accessible to persons with disabilities? (including building or structure)	1	2	3	4
<b>Drinking Fountains</b>		<b>Yes</b>	<b>No</b>		
31	Are there drinking fountains available?	1	2		
32	Are the drinking fountain(s) in working order (e.g., functioning, no standing water, exposed parts or debris in bowl)?	1	2		
<i>Remember: If I was blind, had crutches, in a wheelchair, or if I couldn't understand that well, could I use this site/area/bathroom?</i>		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
33	Are the drinking fountains accessible to persons with disabilities?	1	2	3	4
<b>Restrooms</b>		<b>Yes</b>	<b>No</b>		
34	Are there restrooms?	1	2		
35	Are restrooms in working order (e.g., functioning, clean)?	1	2		

	<i>Remember: If I was blind, had crutches, in a wheelchair, or if I couldn't understand that well, could I use this site/area/bathroom?</i>	<b>Totally</b>	<b>Some Areas/Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
36	Are the restrooms accessible to persons with disabilities?	1	2	3	4
	<b>Changing Areas/Lockers</b>	<b>Yes</b>	<b>No</b>		
37	Are changing areas/locker areas available?	1	2		
38	Are changing areas/locker areas in working order (e.g., functioning, clean)?	1	2		
	<i>Remember: If I was blind, had crutches, in a wheelchair, or if I couldn't understand that well, could I use this site/area/bathroom?</i>	<b>Totally</b>	<b>Some Areas/Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
39	Are the changing areas/locker areas accessible to persons with disabilities?	1	2	3	4
	<b>Pay Phones</b>	<b>Yes</b>	<b>No</b>		
40	Is there a pay phone?	1	2		
41	Is the pay phone in working order?	1	2		
	<i>Remember: If I was blind, had crutches, in a wheelchair, or if I couldn't understand that well, could I use this site/area/bathroom?</i>	<b>Totally</b>	<b>Some Areas/Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
42	Is the pay phone accessible to persons with disabilities?	1	2	3	4
	<b>Transportation</b>	<b>Yes</b>	<b>No</b>		
43	Is parking available in a lot or area provided by the facility?	1	2		
44	Do you have to pay for this parking?	1	2		
45	Is parking designated for persons with disabilities?	1	2		
46	Are bike racks available?	1	2		
	<b>Pedestrian Access</b>				
	Is there a crosswalk within one block of the entrance?	<b>Yes/Light</b>	<b>Yes/No Light</b>	<b>No</b>	<b>No Street</b>
47	Entrance 1	1	2	3	4
48	Entrance 2	1	2	3	4
49	Entrance 3	1	2	3	4
50	Entrance 4	1	2	3	4
51	Entrance 5	1	2	3	4
52	Entrance 6	1	2	3	4
53	Entrance 7	1	2	3	4

### **People**

		<b>Yes</b>	<b>No</b>
55	Is there a police officer/park ranger visible?	1	2
56	Are people arguing, fighting or acting in a threatening manner?	1	2
57	Are people playing together in a friendly, cooperative manner?	1	2
58	Are there "homeless persons" loitering in the facility?	1	2
59	Do people appear to be drinking alcohol?	1	2
60.	Do people appear to be smoking?	1	2

**Comments: Write your comments in this space, use the back of the sheet if necessary**

## Field Area

61	<b>Type of Fields Available in this area</b>	<b>Circle all that apply to this area</b>	<b>How Many of each type are in this Area?</b>		
	Baseball (raised mound 60', 90' to base)	1			
	Softball (flat mound with circle)	2			
	Little League (46' to mound, 60' to base)	3			
	Football	4			
	Soccer	5			
	Lacrosse	6			
	Rugby	7			
	Cricket	8			
	Track	9			
	Other (specify)	10			
				<b>Indoors</b>	<b>Outdoors</b>
62	Is this area indoors or outdoors?		1	2	
	<b>Accessibility</b>	<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
63	Is this area accessible to persons with disabilities?	1	2	3	4
	<b>Seating</b>		<b>Yes</b>	<b>No</b>	
64	Is there seating for players and/or spectators?		1	2	
	<b>Field condition</b>		<b>Yes</b>	<b>No</b>	
65	Field has adequate turf coverage (60% or more of playing area) and grass is less than 6 inches		1	2	
66	Large holes or depressions or other safety considerations		1	2	
			<b>Yes</b>	<b>No</b>	
67	Is the necessary equipment to use this field present and in working order (e.g., backstop, pitching mound)?		1	2	

	<b>Litter/Debris</b>	<b>Almost None</b>	<b>A little</b>	<b>Moderate</b>	<b>A lot</b>
68	Dog Feces	1	2	3	4
69	Litter/Trash including paper, cans, wrappers	1	2	3	4
70	Litter/Natural including leaves, branches	1	2	3	4
71	Glass-including bottles, broken glass	1	2	3	4
		<b>None</b>	<b>(&lt;10% of area)</b>	<b>(10-19% of area)</b>	<b>(20% or more of area)</b>
72	Graffiti (excluding murals/works done by artists who sign their work)	1	2	3	4
		<b>Yes</b>	<b>No</b>		
73	Needles/Syringes, drug related litter	1	2		
74	Condoms/Condom wrappers	1	2		
75	Is lighting available?	1	2		
76	Are shaded areas available?	1	2		
77	Is the area under construction or renovation?	1	2		
78	Are garbage cans present?	1	2		
79	Are garbage cans overflowing?	1	2		
80	Are signs present that identify site including the name of the site, the organization responsible for the site, or the rules of use for the site?	1	2		
	<b>Drinking Fountains</b>	<b>Yes</b>	<b>No</b>		
81	Are there drinking fountains available?	1	2		
82	Are the drinking fountain(s) in working order (e.g., functioning, no standing water, exposed parts or debris in bowl)?	1	2		
		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
83	Are the drinking fountains accessible to persons with disabilities?	1	2	3	4
	<b>Restrooms</b>	<b>Yes</b>	<b>No</b>		
84	Are there restrooms?	1	2		
85	Are restrooms in working order (e.g., functioning, clean)?	1	2		

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
86	Are the restrooms accessible to persons with disabilities?	1	2	3	4
	<b><i>Changing Areas/Lockers</i></b>	<b>Yes</b>	<b>No</b>		
87	Are changing areas/locker areas available?	1	2		
88	Are changing areas/locker areas in working order (e.g., functioning, clean)?	1	2		

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
89	Are the changing areas/locker areas accessible to persons with disabilities?	1	2	3	4
	<b><i>Pay Phones</i></b>	<b>Yes</b>	<b>No</b>		
90	Is there a pay phone?	1	2		
91	Is the pay phone in working order?	1	2		
		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
92	Is the pay phone accessible to persons with disabilities?	1	2	3	4

**People**

		<b>Yes</b>	<b>No</b>
93	Is there a police officer/park ranger visible?	1	2
94	Are people arguing, fighting or acting in a threatening manner?	1	2
95	Are people playing together in a friendly, cooperative manner	1	2
96	Are there "homeless persons" loitering in the facility?	1	2
97	Do people appear to be drinking alcohol?	1	2
98	Do people appear to be smoking?	1	2

**Comments: Write your comments in this space, use the back of the sheet if necessary**



## Courts

<b>99</b>	<b>Type of Courts Available in this area</b>	<b>Circle all that apply to this area</b>	<b>How Many of each type are in this Area?</b>											
	Tennis	1	<table border="1"> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table>											
	Basketball	2												
	Racquetball	3												
	Squash	4												
	Volleyball	5												
	Street Hockey	6												
	Handball	7												
	Other (specify) _____	8												
		<b>Indoors</b>	<b>Outdoors</b>											
100	Is this area indoors or outdoors?	1	2											
	<b>Accessibility</b>	<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>									
101	Is this area accessible to persons with disabilities?	1	2	3	4									
	<b>Seating</b>		<b>Yes</b>	<b>No</b>										
102	Is there seating for players and/or spectators?		1	2										
	<b>Court Condition</b>	<b>Yes</b>	<b>No</b>											
103	20% or more of the playing surface is damaged, defective or deteriorating	1	2											
104	Large holes or depressions other safety concerns	1	2											
		<b>Yes</b>	<b>No</b>											
105	Is the necessary equipment for use for this court present and in working order (e.g., tennis net, backstop/rim)	1	2											
	<b>Item Description</b>	<b>Almost None</b>	<b>A little</b>	<b>Moderate</b>	<b>A lot</b>									
106	Dog Feces	1	2	3	4									

107	Litter/Trash including paper, cans, wrappers	1	2	3	4
108	Litter/Natural including leaves, branches	1	2	3	4
109	Glass-including bottles, broken glass	1	2	3	4
		<b>None</b>	<b>(&lt;10% of area)</b>	<b>(10-19% of area)</b>	<b>(20% or more of area)</b>
110	Graffiti (excluding murals/works done by artists who sign their work)	1	2	3	4
		<b>Yes</b>	<b>No</b>		
111	Needles/Syringes, drug related litter	1	2		
112	Condoms/Condom wrappers	1	2		
113	Is lighting available?	1	2		
114	Are shaded areas available?	1	2		
115	Is the area under construction or renovation?	1	2		
116	Are garbage cans present?	1	2		
117	Are garbage cans overflowing?	1	2		
118	Are signs present that identify site including the name of the site, the organization responsible for the site, or the rules of use for the site?	1	2		
	<b>Drinking Fountains</b>	<b>Yes</b>	<b>No</b>		
119	Are there drinking fountains available?	1	2		
120	Are the drinking fountain(s) in working order (e.g., functioning, no standing water, exposed parts or debris in bowl)?	1	2		
		<b>Totally</b>	<b>Some Areas/Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
121	Are the drinking fountains accessible to persons with disabilities?	1	2	3	4
	<b>Restrooms</b>	<b>Yes</b>	<b>No</b>		
122	Are there restrooms?	1	2		
123	Are restrooms in working order (e.g., functioning, clean)?	1	2		

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
124	Are the restrooms accessible to persons with disabilities?	1	2	3	4
	<b>Changing Areas/Lockers</b>	<b>Yes</b>	<b>No</b>		
125	Are changing areas/locker areas available?	1	2		
126	Are changing areas/locker areas in working order (e.g., functioning, clean)?	1	2		
		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
127	Are the changing areas/locker areas accessible to persons with disabilities?	1	2	3	4
	<b>Pay Phones</b>	<b>Yes</b>	<b>No</b>		
128	Is there a pay phone?	1	2		
129	Is the pay phone in working order?	1	2		
		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
130	Is the pay phone accessible to persons with disabilities?	1	2	3	4
	<b>People</b>				
		<b>Yes</b>	<b>No</b>		
131	Is there a police officer/park ranger visible?	1	2		
132	Are people arguing, fighting or acting in a threatening manner?	1	2		
133	Are people playing together in a friendly, cooperative manner	1	2		
134	Are there "homeless persons" loitering in the facility?	1	2		
135	Do people appear to be drinking alcohol or drunk?	1	2		
136	Do people appear to be smoking tobacco or other drugs?	1	2		

Comments: Write your comments in this space; use the back of the sheet if necessary

### Other Facility Type (Gym, Pool, Golf Course)

137	<b>Type of Facility Available in this area</b>	<b>Circle all that apply to this area</b>	<b>How Many of each type are in this Area?</b>		
	Pool	1			
	Golf Course	2			
	Ice Rink	3			
	Gymnasium	4			
	Studio (for dance, classes, etc)	5			
	Other (specify) _____	6			
138	Is this area indoors or outdoors?		<b>Indoors</b> 1	<b>Outdoors</b> 2	
	<b>Accessibility Remember: If I was blind, had crutches, in a wheelchair, or if I couldn't understand that well, could I use this site/area/bathroom?</b>	<b>Totally</b>	<b>Some Areas/Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
139	Is this area accessible to persons with disabilities?	1	2	3	4
	<b>Seating</b>		<b>Yes</b>	<b>No</b>	
140	Is there seating for players and/or spectators?		1	2	
	<b>Other Facility Condition</b>		<b>Yes</b>	<b>No</b>	
141	20% or more of the playing surface is damaged, defective or deteriorating		1	2	
142	Large holes or depressions other safety concerns		1	2	
143	Is the necessary equipment for use for this area present and in working order (e.g., water in pool)		1	2	

Item Description		Almost None	A little	Moderate	A lot
144	Dog Feces	1	2	3	4
145	Litter/Trash including paper, cans, wrappers	1	2	3	4
146	Litter/Natural including leaves, branches	1	2	3	4
147	Glass-including bottles, broken glass	1	2	3	4
		None	(<10% of area)	(10-19% of area)	(20% or more of area)
148	Graffiti (excluding murals/works done by artists who sign their work)	1	2	3	4
				Yes	No
149	Needles/Syringes, drug related litter			1	2
150	Condoms/Condom wrappers			1	2
151	Is lighting available?			1	2
152	Are shaded areas available?			1	2
153	Is the area under construction or renovation?			1	2
154	Are garbage cans present?			1	2
155	Are garbage cans overflowing?			1	2
156	Are signs present that identify site including the name of the site, the organization responsible for the site, or the rules of use for the site?			1	2
Drinking Fountains		Yes	No		
157	Are there drinking fountains available?	1	2		
158	Are the drinking fountain(s) in working order (e.g., functioning, no standing water, exposed parts or debris in bowl)?	1	2		
		Totally	Some Areas/Signs	Some Areas/No Signs	No
159	Are the drinking fountains accessible to persons with disabilities?	1	2	3	4

<b>Restrooms</b>		<i>Yes</i>	<i>No</i>
160	Are there restrooms?	1	2
161	Are restrooms in working order (e.g., functioning, clean)?	1	2

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
162	Are the restrooms accessible to persons with disabilities?	1	2	3	4

<b>Changing Areas/Lockers</b>		<b>Yes</b>	<b>No</b>
163	Are changing areas/locker areas available?	1	2
164	Are changing areas/locker areas in working order (e.g., functioning, clean)?	1	2

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
165	Are the changing areas/locker areas accessible to persons with disabilities?	1	2	3	4

<b>Pay Phones</b>		<b>Yes</b>	<b>No</b>
166	Is there a pay phone?	1	2
167	Is the pay phone in working order?	1	2

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
168	Is the pay phone accessible to persons with disabilities?	1	2	3	4

<b>People</b>		<b>Yes</b>	<b>No</b>
169	Is there a police officer/park ranger visible?	1	2
170	Are people arguing, fighting or acting in a threatening manner?	1	2
171	Are people playing together in a friendly, cooperative manner	1	2
172	Are there "homeless persons" loitering in the facility?	1	2
173	Do people appear to be drinking alcohol or drunk?	1	2
174	Do people appear to be smoking tobacco or other drugs?	1	2

**Comments: Write your comments in this space, use the back of the sheet if necessary**

## Play Area: General

Item Description		Almost None	Very Light	Moderate	Heavy
175	Dog Feces	1	2	3	4
176	Litter/Trash including paper, cans, wrappers	1	2	3	4
177	Litter/Natural including leaves, branches	1	2	3	4
178	Glass-including bottles, broken glass	1	2	3	4
		None	(<10% of area)	(10-19% of area)	(20% or more of area)
179	Graffiti (excluding murals/works done by artists who sign their work)	1	2	3	4
				Yes	No
180	Needles/Syringes, drug related litter			1	2
181	Condoms/Condom wrappers			1	2
182	Is lighting available?			1	2
183	Are shaded areas available?			1	2
184	Is the area under construction or renovation?			1	2
185	Are garbage cans present?			1	2
186	Are garbage cans overflowing?			1	2
187	Is the area fenced in with a locking/secure gate?			1	2
188	Are signs present that identify site/rules?			1	2
Accessibility		Totally	Some Areas/ Signs	Some Areas/No Signs	No
189	Is the site accessible to persons with disabilities?	1	2	3	4
Sidewalks/Pathways				Yes	No
190	Are there sidewalks or pathways? (Do not include trails that are purposefully left "natural")			1	2
191	Large portions (20% or more) of the sidewalk is damaged, defective or deteriorated			1	2

<b>Pathways: Ramps/Stairs</b>		<b>Yes</b>	<b>No</b>	
192	Are there ramps or stairs on the paved areas of the facility that are used for access to the site?	1	2	
193	Flat surfaces are continuous and have <b>just a few</b> cracks, holes or depressions and/or things you can trip over such as rocks or roots	1	2	
<b>Benches</b>		<b>Yes</b>	<b>No</b>	
194	Are there benches or other forms of seating available?	1	2	
195	Do many (20% or more) of the benches have parts of the sitting surface are broken or missing, chipping paint, exposed bolts or a combination of the above?	1	2	
<b>Landscaping/Environment</b>		<b>Yes</b>	<b>No</b>	
196	There is landscaping that may include trees, bushes, plants (real or fake)?	1	2	
197	Are there murals, sculpture, or other pieces of art in the area?	1	2	
<b>Sprinkler/Wading Area</b>		<b>Yes</b>	<b>No</b>	
198	Is there a sprinkler or wading area?	1	2	
199	Are there sharp edges, clogged drains or other problems that make the area unusable or unsafe?	1	2	
<b>Play Area Surfacing</b>		<b>Yes</b>	<b>No</b>	
200	Is there a play area?	1	2	
201	Does the play area safety surfacing under and around climbing equipment extends 6 feet from the structure? (cement, grass, or other hard surfaces are not acceptable safety surfacing)	1	2	
202	Is there Loose fill surfacing? (wood chips, sand or gravel, rubber)	1	2	
203	Loose fill surfacing is free of debris	1	2	
204	Depth of loose fill surfacing is > 9 inches (measure 2 times)	1	2	Depth
<b>Play Area Climbing Equipment/Slide Hazards</b>		<b>Yes</b>	<b>No</b>	
205	Climbers and/or slides are less than 6 feet high (measure the height of the highest platforms upon which the child can stand)	1	2	Height
206	Equipment is free of rust and splinters	1	2	
207	Area is free of tripping hazards (e.g., rocks, stumps, exposed footings)	1	2	
208	Equipment is free of cracks/holes	1	2	
209	<b>Enclosed</b> Spaces in the structure measure less than 3.5 inches or more than 9 inches	1	2	
210	Equipment is free of broken/missing parts	1	2	



211	Equipment is free of peeling or chipping paint	1	2
212	Equipment is free of protruding bolts, open S-hooks (use a dime for the S-hooks, see figure 4 on page 12 of handbook to identify protrusions)	1	2

#### Play Area Swing Hazards

		Yes	No
213	Are there swings?	1	2
214	Does the play area surfacing under and around swings extend in back and in front, twice the height of the suspending bar?	1	2
215	Is there Loose fill surfacing?	1	2
216	Is the Loose fill surfacing is free of debris?	1	2
217	Depth of loose fill surfacing is > 9 inches (measure 2 times & write them in space to right of question)	1	2
218	Swing seats are made from hard or rigid material	1	2
219	There are more than two swings per bay	1	2
220	Tot swings are found in the same bay as regular swings	1	2

**(the following measurements should be taken at a height of 60 inches from the safety surface—see figure 22 on handbook page 28 )**

221	Swings are at least 24 inches apart (measure 2 times)	1	2	Distance
222	Swings are at least 30 inches from the supports (measure 2 times)	1	2	Distance

#### Sandbox

		Yes	No
223	Is there a sandbox?	1	2
224	Sand is free of debris that could cut or harm a child or restrict play? (Some leaves or sticks or other “natural” debris is acceptable, lots of trash or animal feces is not acceptable)	1	2

#### Play Area: Supervision

		Yes	No	
225	Adults are present when children are on equipment	1	2	3 (no one using equipment)
226	Children can be viewed in all areas while on equipment (no solid guards/ hiding spaces)	1	2	
227	Children can be viewed in crawl spaces (look especially in areas between the equipment and the ground)	1	2	3 (no crawl spaces)

#### Drinking Fountains

		Yes	No
228	Are there drinking fountains available?	1	2
229	Are the drinking fountain(s) in working order (e.g., functioning, no standing water, exposed parts or debris in bowl)?	1	2

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
230	Are the drinking fountains accessible to persons with disabilities?	1	2	3	4

#### **Restrooms**

231	Are there restrooms?	1	2		
232	Are restrooms in working order (e.g., functioning, clean)?	1	2		

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
233	Are the restrooms accessible to persons with disabilities?	1	2	3	4

#### **Changing Areas/Lockers**

		<b>Yes</b>	<b>No</b>		
234	Are changing areas/locker areas available?	1	2		
235	Are changing areas/locker areas in working order (e.g., functioning, clean)?	1	2		

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
236	Are the changing areas/locker areas accessible to persons with disabilities?	1	2	3	4

#### **Pay Phones**

		<b>Yes</b>	<b>No</b>		
237	Is there a pay phone?	1	2		
238	Is the pay phone in working order?	1	2		

		<b>Totally</b>	<b>Some Areas/ Signs</b>	<b>Some Areas/No Signs</b>	<b>No</b>
239	Is the pay phone accessible to persons with disabilities?	1	2	3	4

#### **People**

		<b>Yes</b>	<b>No</b>		
240	Is there a police officer/park ranger visible?	1	2		
241	Are people arguing, fighting or acting in a threatening manner?	1	2		
242	Are people playing together in a friendly, cooperative manner	1	2		
243	Are there "homeless persons" loitering in the facility?	1	2		
244	Do people appear to be drinking alcohol or drunk?	1	2		
245	Do people appear to be smoking tobacco or other drugs?	1	2		

Comments: Write your comments in this space, use the back of the sheet if necessary

## Appendix E

### Play Area Quality Audit Checklist Play Area: General Aesthetics

**Remember move around the perimeter of the entire facility to complete this checklist.**

Item Description	Almost None	Very Light	Moderate	Heavy
Dog Faeces	1	2	3	4
Litter/Trash inc paper, cans, wrappers	1	2	3	4
Litter/Natural inc leaves, branches	1	2	3	4
Glass-including bottles, broken glass	1	2	3	4

	None	(<10% of area)	(10-19% of area)	(20% or more of area)
Graffiti (excluding murals/works done by artists who sign their work)	1	2	3	4

	Yes	No
Needles/Syringes, drug related litter	1	2
Condoms/condom wrappers	1	2
Is lighting available?	1	2
Are shaded areas available?	1	2
Is the area under construction or renovation?	1	2
Are litterbins present?	1	2
Are litterbins overflowing?	1	2
Is the area fenced in with a locking/secure gate?	1	2
Are signs present that identify the rules?	1	2

Accessibility	Totally	Some Areas/Signs	Some Areas/No signs	No
Is the site accessible to persons with disabilities?	1	2	3	4

Pavements/Pathways	Yes	No
Are there pavements or pathways? (Do not include trails that are purposefully left "natural")	1	2
Large portions (20% or more) of the pavement are damaged, defective or deteriorated	1	2

## Appendix E

### Pathways: Ramps/stairs

Are there ramps or stairs on the paved areas of the facility that are used for access to the site?

Yes	No
1	2

Flat surfaces are continuous and have **just a few** cracks, holes or depressions and/or things you can trip over such as rocks or roots

1	2
---	---

### Benches

Are there benches or other forms of seating available?

Yes	No
1	2

Do many (20% or more) of the benches have parts of the sitting surface that are broken or missing, chipping paint, exposed bolts, or a combination of the above?

1	2
---	---

### Landscaping/Environment

There is landscaping that may include trees, bushes, plants, (real or fake)?

Yes	No
1	2

Are there murals, sculpture, or other pieces of art in the area?

1	2
---	---

### Sprinkler/Wading Area

Is there a sprinkler or wading area?

Yes	No
1	2

Are there sharp edges, clogged drains or other problems that make the area unusable or unsafe?

1	2
---	---

### Play area Surfacing

Is there a play area?

Yes	No
1	2

Does the play area safety surfacing under and around climbing equipment extend 6 feet from the structure/s? (Cement, grass or other hard surfaces are not acceptable safety surfacing)

1	2
---	---

Is there "loose fill" surfacing? (wood chips, sand or gravel, rubber)

1	2
---	---

"Loose fill" surfacing is free of debris

1	2
---	---

"Loose fill" surface material is adequately filled

1	2
---	---

### Play area climbing equipment/slide hazards

Climbers and/or slides are less than 6 feet high (measure the height of the highest platforms upon which the child can stand)

Yes	No
1	2

Equipment is free of rust and splinters

1	2
---	---

Area is free of tripping hazards (e.g. rocks, stumps, exposed footings)

1	2
---	---

Equipment is free of cracks/holes

1	2
---	---

## Appendix E

<b>Enclosed</b> spaces in the structure measure less than 3.5 inches or more than 9 inches	1	2
	<b>Yes</b>	<b>No</b>
Equipment is free of broken/missing parts	1	2
Equipment is free of peeling or chipping paint	1	2
Equipment is free of protruding bolts, open S-hooks, or snag hazards	1	2
<b>Play area swing hazards</b>	<b>Yes</b>	<b>No</b>
Are there swings?	1	2
Does the play area safety surfacing under and around swings extend in back and in front, twice the height of the suspending bar?	1	2
Is there "loose fill" surfacing? (wood chips, sand or gravel, rubber)	1	2
"Loose fill" surfacing is free of debris	1	2
"Loose fill" surface material is adequately filled	1	2
Swing seats are made from hard or rigid material	1	2
There are more than 2 swings per bay	1	2
Toddler swings are found in the same bay as regular swings	1	2
Equipment is free of rust and splinters	1	2
Equipment is free of broken/missing parts	1	2
Equipment is free of peeling or chipping paint	1	2
<b>Roundabouts</b>	<b>Yes</b>	<b>No</b>
Are there roundabouts?	1	2
Is there "loose fill" surfacing? (wood chips, sand or gravel, rubber)	1	2
"Loose fill" surfacing is free of debris	1	2
"Loose fill" surface material is adequately filled	1	2
Equipment is free of rust and splinters	1	2
Equipment is free of broken/missing parts	1	2
Equipment is free of peeling or chipping paint	1	2
<b>Spring Toys/Seesaws</b>	<b>Yes</b>	<b>No</b>
Are there spring toys/see-saws?	1	2
Is there "loose fill" surfacing? (wood chips, sand or gravel, rubber)	1	2
"Loose fill" surfacing is free of debris	1	2
"Loose fill" surface material is adequately filled	1	2
Equipment is free of rust and splinters	1	2
Equipment is free of broken/missing parts	1	2
Equipment is free of peeling or chipping paint	1	2

## Appendix E

<b>Spring Toys/Seesaws</b>	<b>Yes</b>	<b>No</b>	
Are there spring toys/see-saws?	1	2	
Is there "loose fill" surfacing? (wood chips, sand or gravel, rubber)	1	2	
"Loose fill" surfacing is free of debris	1	2	
"Loose fill" surface material is adequately filled	1	2	
Equipment is free of rust and splinters	1	2	
Equipment is free of broken/missing parts	1	2	
Equipment is free of peeling or chipping paint	1	2	
Children can be viewed in all areas while on the equipment (no solid guards/hiding spaces)	1	2	3 (no one using equipment)
Children can be viewed in crawl spaces (look especially in areas between the equipment and the ground)	1	2	3 (no crawl spaces)

<b>Drinking Fountains</b>	<b>Yes</b>	<b>No</b>	
Are there drinking fountains available?	1	2	
Are the drinking fountain(s) in working order (e.g. functioning, no standing water, exposed parts or debris in bowl)?	1	2	
	<b>Totally</b>	<b>Some Areas/signs</b>	<b>Some areas/ no signs</b>
Are the drinking fountains accessible to persons with disabilities?	1	2	3
			<b>No</b>
			4

<b>Toilets</b>	<b>Yes</b>	<b>No</b>	
Are there public toilets?	1	2	
Are toilets in working order (e.g. functioning, clean)?	1	2	
	<b>Totally</b>	<b>Some Areas/signs</b>	<b>Some areas/ no signs</b>
Are the toilets accessible to persons with disabilities?	1	2	3
			<b>No</b>
			4

## Appendix E

### Changing areas/lockers

	Yes	No
Are there changing areas/locker areas available?	1	2
Are changing areas/locker areas in working order (e.g. functioning, clean)?	1	2

	Totally	Some Areas/signs	Some areas/no signs	No
Are the changing areas/locker areas accessible to persons with disabilities?	1	2	3	4

### Payphones

	Yes	No
Is there a pay phone?	1	2
Is the pay phone in working order?	1	2

	Totally	Some Areas/signs	Some areas/no signs	No
Is the pay phone accessible to persons with disabilities?	1	2	3	4

### Persons

	Yes	No	
Is there a police officer/park ranger visible?	1	2	
Are people arguing, fighting or acting in a threatening manner?	1	2	3 (no one in the play area)
Are people playing together in a friendly, cooperative manner?	1	2	3 (no one in the play area)
Are there "homeless persons" loitering in the facility?	1	2	
Do people appear to be drinking alcohol or drunk?	1	2	
Do people appear to be smoking tobacco or other drugs?	1	2	

Comments: Write your comments in this space:



**Children's Playgrounds Research**  
**Quality & Use Study**  
**Information Sheet**

**Who is this information sheet for?**

This information sheet is for playground users and other children or adults who would like more information about the research being conducted in play areas across Glasgow.

**What are we doing in the playgrounds?**

We are carrying out research about playgrounds in Glasgow and as part of this we are looking at playground equipment and observing how many and what types of children (e.g. boys or girls, their ages and ethnicity) visit particular play areas. We are also interested in the types of activities that children take part in whilst at playgrounds (e.g. playing on equipment, such as swings or playing their own games, such as football). We will write down these details and take photographs of the playground to document the state of repair of equipment. No one will be identifiable in the photographs.

**Why is this research being carried out?**

Outdoor play may be very good for your health and well being, but only if you have somewhere safe, pleasant and fun to play. We want to know more about how many children use local playgrounds and the kinds of things that they do there. We are also interested in what the playground is like and how nice it is to play there. We are visiting a number of playgrounds in Glasgow and will write down information about the play area and the people who are using it. Once we have completed our project, we want to be able to tell people in charge of playgrounds, what the playgrounds in Glasgow are like and how they are used. This may help them to improve playgrounds.

**What will happen to you if you are in the playground?**

This project will take place at different playgrounds across Glasgow city during mornings and afternoons during the week and at the weekend. If you are in the playground during the study, then you will be counted. We will observe you and other children from a distance. We will not approach any children or interrupt your play, but people may ask us for information if they would like to. We will not write down any personal information about you and you will not be included in any photographs.

**Will it help you?**

This is a research project. Although taking part will not be of immediate benefit to you, the information may help people to understand what playgrounds are like and



## Appendix F

how children spend their time in playgrounds. This may help people to design better playgrounds in the future.

### **Who will know that you have taken part?**

We will not take any personal details from you, so no one will know that you have taken part in this study.

### **Who has checked the study?**

This study has been given permission by the Ethics Committee of Glasgow University's Law, Business & Social Science faculty.

### **Who is doing this research?**

This project will be carried out by Chloé Hughes, a student at the University of Glasgow.

### **If you would like to know more:**

Thank you for reading this information. If you would like to know more or have any questions, you or your parents can contact us at the details below:

#### ***Chloe Hughes – PhD Student***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow,  
4 Lilybank Gardens, Glasgow, G12 8RZ.

**Telephone:** 0141 357 7536 **Email:** [chloe@msoc.mrc.gla.ac.uk](mailto:chloe@msoc.mrc.gla.ac.uk)

#### ***Prof Sally Macintyre – Unit Director***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow,  
4 Lilybank Gardens, Glasgow, G12 8RZ

**Telephone:** 0141 357 7550 **Email:** [sally@msoc.mrc.gla.ac.uk](mailto:sally@msoc.mrc.gla.ac.uk)

#### ***Prof Nanette Mutrie – Sport & Exercise Psychologist***

**Address:** Department of Sport, Culture and the Arts, Strathclyde University (Jordanhill Campus),  
PESOE Building, 76 Southbrae Drive, Glasgow, G13 1PP

**Telephone:** 0141 950 3371 **Email:** [nanette.mutrie@strath.ac.uk](mailto:nanette.mutrie@strath.ac.uk)

If you would prefer to talk to an independent person regarding this research, please contact:

#### ***Ms Michaela Benzeval – Chair of Research Governance Committee***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow, 4 Lilybank Gardens,  
Glasgow, G12 8RZ

**Telephone:** 0141 357 7535 **Email:** [michaela@msoc.mrc.gla.ac.uk](mailto:michaela@msoc.mrc.gla.ac.uk)

Instructions to be read to the children	Permitted Reminders	Beware
<p><b>Sheet 1</b></p> <p><b>Draw</b> a picture of a place where you enjoy playing.</p> <p><b>Stop</b>, even if you haven't finished your picture. You can finish it later</p> <p><b>Draw</b> all of the things in this place that make it a nice place to play and <b>write</b> at the side of each thing what it is. <b>Write</b> down all of the reasons that you enjoy playing here.</p> <p>If you need some help with the writing, I/we will come round and you can whisper.</p> <p>Go on with drawing all the things in this place that make it a good place to play.</p> <p><b>Well Done!</b></p>	<p>Allow sufficient time for the drawing. You will know how much time is required.</p> <p>When you have given the class sufficient time, tell them to stop and check that they have some writing at the side of each of the things that they have drawn.</p> <p>When you are sure that they have finished <b>writing</b>, go on to Sheet 2.</p>	<p>Don't give any clues.</p> <p>Don't suggest anything.</p> <p>Scribes: write only what the child dictates.</p> <p>Don't indicate approval, except to praise effort.</p>

### Now for Sheet 2.

<p><b>Sheet 2</b></p> <p>Now, <b>draw</b> a picture of a place where you do not enjoy playing.</p> <p><b>Stop</b>, even if you haven't quite finished your picture.</p> <p><b>Draw</b> all of the things in this place that make it a not very nice place to play and <b>write</b> at the side of each thing what it is. <b>Write</b> down all of the reasons you do not enjoy playing here.</p> <p>I/we will help you with writing what you want to say.</p> <p>Check that you have written beside all of your drawings.</p> <p><b>Well Done!</b></p> <p>You can have a few minutes to colour in your pictures, but not to talk about them!</p>	<p>When you have given the class sufficient drawing time, tell them to stop and check that they have some writing at the side of each of the things that they have drawn.</p> <p>Give the children some extra time to colour in their pictures.</p> <p><b>Thank the children for their contribution.</b></p>	<p>As for Sheet 1.</p> <p>During the more relaxed colouring in session, the children may begin to share ideas.</p> <p><b>Make sure that the children are not exchanging ideas.</b></p>
--	--	--

## Appendix H





## Appendix H





## Appendix H





## Appendix H





## Appendix H





## Appendix H





## Appendix H





INSERT DATE

*"Insert School Address"*

Dear *"INSERT HEADTEACHER'S NAME"*,

**Research project: the health implications of outdoor play provision - investigating the gender and socioeconomic variations in the perception of public outdoor play-areas**

I am writing to request you and your school's assistance with a research project that I am conducting to investigate children's and parent's views of publicly available, outdoor play provision.

As part of a larger project, I am interested in talking to children in P6 and some of their parents about their views regarding outdoor play and the types of facilities that they have access to. Additionally, possible benefits and barriers to play-areas' safe and healthy use will be investigated. There are many potential health benefits of outdoor play, but these can only be achieved if children have access to a safe, pleasant and fun environment in which to play. These may not always be available to children, or there may be other things which stop children using play facilities in ways that they would like. I would like to distribute a short "draw-and-write" worksheet about places for play which could be completed by whole class groups and also conduct small group discussions with children in P6 and interviews with some of their parents in order to investigate these issues.

This research project is funded by the Chief Scientist Office of the Scottish Executive Health Department and is being supervised by two experienced researchers. It has received the support from the Ethics Committee of the faculty of Law, Business & Social Sciences at Glasgow University and I have enclosed a copy of a letter from Glasgow City Council Education Department indicating their approval. I have also undergone a police check and have been granted an enhanced disclosure by Disclosure Scotland.

## **Appendix I**

In addition to parental consent, written consent will be sought from pupils before involvement in the project. Discussions will be tape-recorded with the consent of participants, and all information collected will be treated in the strictest of confidence. The anonymity of those taking part will be maintained and findings will not be reported in a way which any individual or school can be identified.

I have attached details of what participation in the study would involve for both the school and the individual participants. Copies of the materials produced to inform parents and pupils about the study, are also enclosed. Additionally, an example of the “draw-and-write” teacher instructions and worksheet are enclosed.

I would really appreciate it if you could consider helping me with this project which I would endeavour to carry out with the minimum amount of disruption to both pupils and staff. In return for your help I would be more than willing to distribute feedback leaflets to the school or to provide information about the benefits of healthy outdoor play for young people, around which an information session or some class work could be based. I appreciate that you may have further questions and I would be more than happy to meet with you to discuss these, however if you have any immediate concerns please do not hesitate to telephone or e-mail me directly. I will follow up this letter with a telephone call in one week to enquire as to whether you would be willing to assist in this project and to answer any questions that you may have about the proposed research.

Thank you for taking the time to read and consider this.

Yours sincerely,

Chloé Hughes BSc  
Doctoral Researcher  
Tel: 0141 357 7536  
Email: [chloe@msoc.mrc.gla.ac.uk](mailto:chloe@msoc.mrc.gla.ac.uk)





## Children's Views of Outdoor Play Provision

### School Involvement

I would like your help in contacting boys and girls in P6 and some of their parents. Each pupil will have the opportunity to complete a draw and write activity worksheet and some children may take part in a group discussion with between 3 and 5 pupils. If more than 15 pupils wish to take part in the group discussions, children's names will be chosen from a hat for selection. If teachers wish to use the discussion points for class-based discussions, these will be made available.

- A summary of the maximum involvement requested from the school is as follows:
- Time during P6 classes for the researcher to introduce the study and distribute information packs.
- Arranging collection of consent forms from pupils and return of these to the researcher.
- A quiet part of the school to conduct group discussions with pupils and possibly parents.
- Time slots for the researcher to conduct discussions with up to 3 groups of 3-5 pupils.
- Time slots for a class-based "draw-and-write" activity about places for play.
-

**Pupil Involvement**

The “draw-and-write” activity can be undertaken as part of a class lesson. However, without pupil and parental consent, their work will not be examined during the research. Only pupils who agree to take part in group discussions, with parental consent, will be selected for the group discussion.

- The length of time devoted to the “draw-and-write” activity can be adapted to suit lesson plans and individual needs of the pupils.
- A maximum of three group discussions will be carried out with up to five pupils and the researcher. Short tasks will be used to generate conversation amongst pupils about their views of outdoor play and the types of facilities that they can/would like to visit. Possible benefits and barriers to the safe and healthy use of play areas will also be discussed. Discussions have been designed to last around 45 minutes.



### **Children's Playgrounds Research** **Parental Information Sheet**

#### **Why is this research being carried out?**

There are many potential health benefits of outdoor play, but these can only be achieved if children have a safe, pleasant and fun environment in which to play. We want to know what children and their parents think about outdoor play areas. We are also interested in things that may prevent you and your child from using play facilities in the ways that you would like and how you think that they could be improved.

#### **Can you help us?**

You and/or your child are being invited to take part in this research. Before you decide whether or not to take part, it is important that you understand why the research is being carried out and what it will involve. Please take the time to read this information and discuss it with others if you wish. You can ask us if there is anything that is not clear.

#### **Why have we asked you to take part?**

We have chosen primary schools at random in different areas of Glasgow. We are interested in speaking with children aged 10-11 and since your child is in Primary 6, you are both invited to take part in this research.

#### **Do you have to take part?**

No, taking part is entirely voluntary. You can both choose to take part or you or your child could take part individually. Additionally, if either of you change your mind once you have agreed to take part, you can withdraw at any time. All you have to do is let us know.

#### **What will happen to your child if he/she takes part?**

If your child takes part, he/she will be involved in small group discussions. These will take place within school hours at INSERT SCHOOL NAME. Short activities will be used to generate conversation and your child will be asked to draw a picture about play and write a few sentences about his/her drawing. With your permission, the discussions will be recorded. None of the drawing or writing tasks will be graded or marked.

#### **What will happen if you decide to take part?**

If you decide that you would like to help, you will be asked to take part in a small group discussion with some parents of other P6 pupils attending INSERT SCHOOL NAME. A researcher will arrange to meet with you and other parents at the school at a time convenient to you all. In these groups you will be asked to discuss your views and opinions of outdoor play areas. You may be shown photographs of play areas and asked what you think about them. The discussion should not take longer than 45 minutes and, with your permission, will be recorded.

#### **Will it help you?**

This is a research study. Although, neither you nor your child will benefit directly from helping us with this research, it may help other people understand how children and parents feel about outdoor play provision and may help services become more tailored to your needs. However, we do not personally have any control over play provision in Glasgow and cannot implement any changes.

## Appendix K

### **Who will know that you have taken part?**

Your involvement will be kept strictly confidential and only the research team will have access to the tapes and written copies of the group discussions. We will not name you or your child or print your address or school details in the research.

### **What will happen to the results of the research study?**

We hope to write about our research in papers published in scientific journals. We also hope to present the information at scientific conferences. We hope to be able to suggest improvements to current play provision in Glasgow, and to inform policy makers, schools, playground designers and play workers of what adults and children think about playgrounds.

We may quote what you or your child says and may use extracts of your child's written work or drawings, but we will remove any information that may make you or your child identifiable.

### **Who is organising, and paying for, the research?**

This project will be carried out by Chloé Hughes, a postgraduate student at the University of Glasgow, who is funded by the Chief Scientist Office at the Scottish Executive.

### **Who has approved the study?**

The research has been reviewed by the Law, Business & Social Science Ethics Committee at the University of Glasgow. The Local Education Authority and INSERT HEADTEACHER'S NAME have also agreed to this research taking part within INSERT SCHOOL NAME.

### **What to do next**

Thank you for taking the time to read this information. If you or your child are interested in taking part in this research, please fill in the consent form attached and return it to your child's primary school. Please note that if a large number of people volunteer to take part, we will choose participants by picking names from a hat so that everyone has an equal chance of being included. We will inform you if this occurs.

### **If you would like to know more:**

Thank you for reading this information. If you would like to know more or have any questions, you can contact us at the details below:

#### ***Chloe Hughes – PhD Student***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow,  
4 Lilybank Gardens, Glasgow, G12 8RZ.

**Telephone:** 0141 357 7536 **Email:** [chloe@msoc.mrc.gla.ac.uk](mailto:chloe@msoc.mrc.gla.ac.uk)

#### ***Prof Sally Macintyre – Unit Director***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow,  
4 Lilybank Gardens, Glasgow, G12 8RZ

**Telephone:** 0141 357 7550 **Email:** [sally@msoc.mrc.gla.ac.uk](mailto:sally@msoc.mrc.gla.ac.uk)

#### ***Prof Nanette Mutrie – Sport & Exercise Psychologist***

**Address:** Department of Sport, Culture and the Arts, Strathclyde University (Jordanhill Campus),  
PESOE Building, 76 Southbrae Drive, Glasgow, G13 1PP

**Telephone:** 0141 950 3371 **Email:** [nanette.mutrie@strath.ac.uk](mailto:nanette.mutrie@strath.ac.uk)

If you would prefer to talk to an independent person regarding this research, please contact:

#### ***Ms Michaela Benzeval – Chair of Research Governance Committee***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow, 4 Lilybank Gardens,  
Glasgow, G12 8RZ

**Telephone:** 0141 357 7535 **Email:** [michaela@msoc.mrc.gla.ac.uk](mailto:michaela@msoc.mrc.gla.ac.uk)

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MRC Social & Public Health Sciences Unit, 4 Lilybank Gardens, Glasgow, G12 8RZ  
Tel: 0141 357 3949 Fax: 0141 337 2389 [www.msoc-mrc.gla.ac.uk](http://www.msoc-mrc.gla.ac.uk)

A Research Unit supported by the Medical Research Council and the Chief Scientist Office  
of the Scottish Executive Health Department, at the University of Glasgow



## **Children's Playgrounds Research** **Children's Information Sheet**

### **Why is this research being carried out?**

Outdoor play may be very good for your health, but only if you have somewhere safe, pleasant and fun to play. We want to know what girls and boys who live in different areas of Glasgow think about outdoor playgrounds. We will have small group discussions and you may also be asked to draw a playground and to write about your drawing. We will also be talking to some parents. Once we have completed our project, we want to be able to tell people in charge of playgrounds what improvements children and parents would like.

### **Can you help us?**

We would like your help, but you need to understand all about our project before you make up your mind. Please read this carefully, and talk about it with your parent/guardian. If there is anything you don't understand or if you would like to know a bit more, you can ask us. Take your time to decide if you want to take part. Your parent/guardians will also need to agree.

### **Why have we asked you to take part?**

We have asked you because you go to school in an area of Glasgow that we are interested in and because you are in P6, like the other children taking part.

### **What will happen to you if you decide to take part?**

This project will take place at your primary school. If you would like to help, and your parents think that it is ok, then we will ask you to draw a picture and write a little bit about your drawing. You may also be asked to take part in a discussion with some of your classmates. If you agree, the discussions will be tape-recorded and we will take away your drawings and written work to help us understand what you think about outdoor play. You will not be marked or graded for your work and we will not be able to return it to you. If too many children want to take part, we will pick names from a hat, so that everyone has an equal chance to take part.

### **Will it help you?**

This is a research project. Although taking part will not help you, the information may help people to understand what children think about playgrounds and may help people to improve playgrounds. However, we cannot change or build new playgrounds.



## Appendix L

### **Who will know that you have taken part?**

Your name, address and school name will be kept a secret. If we print results of the study, no one will know that you or your parents took part. If we use what you say or write, or include your drawings in any printed results, we will not put your name or school on it.

### **Do you have to take part?**

No, not if you don't want to. Also, if you agree to take part, but then change your mind, it's ok for you to stop. All you have to do is tell us.

### **Who has checked the study?**

This study has been given permission by the Law, Business & Social Science Ethics Committee of Glasgow University.

### **Who is doing this research?**

This project will be carried out by Chloé Hughes, a student at the University of Glasgow.

### **If you would like to know more:**

Thank you for reading this information. If you would like to know more or have any questions, you or your parents can contact us at the details below:

#### ***Chloe Hughes – PhD Student***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow,  
4 Lilybank Gardens, Glasgow, G12 8RZ.

**Telephone:** 0141 357 7536 **Email:** [chloe@msoc.mrc.gla.ac.uk](mailto:chloe@msoc.mrc.gla.ac.uk)

#### ***Prof Sally Macintyre – Unit Director***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow,  
4 Lilybank Gardens, Glasgow, G12 8RZ

**Telephone:** 0141 357 7550 **Email:** [sally@msoc.mrc.gla.ac.uk](mailto:sally@msoc.mrc.gla.ac.uk)

#### ***Prof Nanette Mutrie – Sport & Exercise Psychologist***

**Address:** Department of Sport, Culture and the Arts, Strathclyde University (Jordanhill Campus),  
PESOE Building, 76 Southbrae Drive, Glasgow, G13 1PP

**Telephone:** 0141 950 3371 **Email:** [nanette.mutrie@strath.ac.uk](mailto:nanette.mutrie@strath.ac.uk)

If you would prefer to talk to an independent person regarding this research, please contact:

#### ***Ms Michaela Benzeval – Chair of Research Governance Committee***

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow, 4 Lilybank Gardens,  
Glasgow, G12 8RZ

**Telephone:** 0141 357 7535 **Email:** [michaela@msoc.mrc.gla.ac.uk](mailto:michaela@msoc.mrc.gla.ac.uk)

## Appendix M



Date

Dear Parent/Guardian,

### **CHILDREN'S OUTDOOR PLAYGROUND RESEARCH**

I am part of a small team that is currently researching children and adults' views of outdoor play areas in Glasgow.

Outdoor play is potentially very beneficial to children's health, but in order that these benefits can be achieved, children need somewhere safe, pleasant and fun to play. This may not always be available for children and there may be things that stop you and your child using playgrounds in the ways that you would like.

We have chosen INSERT NAME OF Primary School, which your child attends, and would like to speak to children in P6 and their parents. I have spoken to HEADTEACHER NAME about this research and he/she thinks that it is an important and interesting project and something that children and parents of INSERT NAME OF Primary School may like to be involved in. We would like to hear about you and your child's opinions of outdoor play areas in Glasgow, as well as any suggestions that you can make about ways in which they could be improved. With the information that we receive from parents and children, we hope that we will be able to inform policy makers and suggest changes to the current provision.

Enclosed with this letter is some more information about the research for you and your child to read and also a consent sheet, which should be signed and returned to your child's school, should you wish to take part, by **DATE**

If you have any questions about the research then please do not hesitate to contact me. If for any reason, I am unavailable then you may wish to speak to Prof Sally Macintyre on 0141 357 3949. Many thanks for taking the time to read this information.

Yours faithfully,

Miss Chloé Hughes

Doctoral Researcher  
Telephone: 0141 357 7536  
e-mail:[chloe@msoc.mrc.gla.ac.uk](mailto:chloe@msoc.mrc.gla.ac.uk)



## CHILDREN'S OUTDOOR PLAYGROUND RESEARCH

### PARENTAL CONSENT SHEET

To be complete by a parent or guardian who **agrees** for themselves and/or their child to take part in the Children's Outdoor Playground Research Project

Please Tick these boxes to confirm you agree

with the statement

☐

I confirm that I have read and understood the information sheet for the above study and that I have had the opportunity to ask any questions about it.

☐

I understand that my and my child's group discussions will be tape-recorded and that quotations of what is discussed, along with extracts of my child's written or drawing work, may be used in research publications or presentations (with any identifiable information removed) and I give my consent for this to occur.

☐

I understand that taking part in this research is entirely voluntary and that I and/or my child can withdraw at any time.

Please use BLOCK CAPITALS

I, *(insert your name)*

.....

BEING THE *(insert relationship)*

.....

OF *(child's full name)*

.....

A PUPIL AT *(school name)*

.....

WISH TO GIVE CONSENT FOR:

☐

MYSELF TO TAKE PART IN THE RESEARCH PROJECT

☐

MY CHILD TO TAKE PART IN THE RESEARCH PROJECT

.....

Signature of Parent/Guardian

.....

Date.



**CHILDREN'S OUTDOOR PLAYGROUND RESEARCH**

**CHILD CONSENT SHEET**

Please Tick this box

if you agree

☐

I have read or listened to the information about the study and I understand what it is about. I have been able to ask questions about it.

☐

I understand that the group discussions will be tape-recorded and that parts of what I say, write or draw may be used in the research publications or presentations, with my name and school details removed.

☐

I understand that I do not have to take part in this research and that if I do decide to take part, but later change my mind, then that is ok.

I would like to take part in this research

.....

Name

.....

School Name

.....

Your Signature

.....

Date

## **Parental Focus Group**

### **Topic Guide**

#### **Intro**

- Can I just begin and ask you to tell me your name, approximate age, whether you work or not and whether you live alone or with others?
  - *Probe: number & ages of children*

#### **General Play**

- Where do(es) your child(ren) play?
  - *Probes: home, garden, play area, park, street, leisure centre*
- Where do they play the most often?
- How much time would you say your child spends playing?
- How important do you think play is for your child?
- What benefits do you think your child get from play?
  - *Probes: social, fun, exercise, meet friends, relax,*

#### **Photos**

These are photos of outdoor play areas in Glasgow...

- Can you tell me what you think about them?
- Which ones are the best/worst & why?
- Are they similar to play provision in your area?

#### **Play areas where you live**

- What do you think about the outdoor play provision in your area?
  - *Probes: good/bad, state of repair, facilities, where it's sited,*
- Do you and/or your children visit them? Why/Why not?
  - *Probes: how often, graffiti, vandalism, crime, equipment, target age group,*
- Do you go with your children to the play areas or do your children visit them alone or with friends?
- Do you think it is different for your different children?
  - *Probes: girls/boys, age, different era*
- What kinds of things do you or your children enjoy about visiting the play areas?

#### **Appendix P**

- *Probes: fun, outside, nice place, meet people, kids enjoy it, equipment, gets you out of the house,*
- What kinds of things don't you like about visiting the play areas?
  - *Probes: graffiti, vandalism, weather, safety, litter, other people in play area, drugs/alcohol, safety*
- What could be done to make you visit them more often/enjoy your visit more?
- What do you think are the most important things for a good play area?
- What do you think your child(ren) would answer to that question?

## Appendix Q

### GCC Interview Schedule - “operators”

Hi my name is Chloé & I'm doing some research about Glasgow's play provision. Since your work involves some of these areas, I think that you will know quite a lot about them. Before we start I'd just like to ask that you don't mind me recording this discussion so that I can get what you say in full and correct? The only people that will hear the tape and any transcripts from it are me and my supervisors at Glasgow uni. If you agree, I may use quotes of things that you say in published work but I will not include your name, job title, which depot you work from or anything else from which you could be identified. There are no right or wrong answers & if there is anything which you don't want to answer then do not feel obliged to do so. If at any time you wish to stop the interview then that's ok too so just let me know.

- Can I just start by asking you to tell me a little bit about yourself: your name, age, your job title & whether you live alone or with others?
- I'm very interested in play provision but can I ask you why you think the Council provides play areas?
  - What do you think play areas are for?
  - What is their purpose?*PROBES: social? Obesity? physical activity? green space Political? Expected? Well-being? Makes areas nice? Something to keep children busy?*
- Do you think the provision in Glasgow meets that purpose? Why/why not? What could improve them?  
*PROBES: what about in the area you work in? is it like this across the whole city? How do you think they could be improved? Public consultation?*
- Who do you think that the play areas are for & why?  
*PROBES: Age- groups? Boys or girls? Different areas of the city? those without gardens? Socially excluded?*
- Who do you think makes use of them? How much do you think they use them? Why do you think others do not use them?  
*PROBES: Mothers/toddlers, children, teenagers, adults, drinking/drug-use?*
- Overall, what do you think of the play provision in Glasgow? Would you send a/your child to one?  
*PROBES: Good/bad? State of repair? Types of equipment? lots of £ put into them? exciting/boring? where they are situated?*
- How do you think play provision varies in different areas of the city?  
*PROBES: more/less provision? mis-use? new/old? More investment? Less children?*
- What makes a good play area in your opinion? Why? Examples?  
*PROBES: equipment? New/refurbished? Used a lot? Feedback from users? Exciting/different? Not vandalised? Situation in community?*
- And a bad one? Why? Examples?
- What about mis-use of the areas?  
*PROBES: Graffiti, vandalism, drugs, alcohol, gangs?*

## Appendix Q

- Do you find alcohol/drug evidence? Is it wide spread?

*PROBES: needles? Drink bottles/cans? Pill bottles? Any others?*

- Sometimes when we visited play sites, the equipment was no longer there or was in the process of being removed? Do you know why this happens? How? Who decides?

*PROBES: vandalism? Public concern? Redevelopment? Move?*

- Do you see many people out in the play areas when you are working? Do tell you what they think about the play areas? What kinds of things do they say?

*PROBES: safety concerns? Complaints? Enjoyment/like the area?*

- Is there anything else that you can think of about play areas that we have not mentioned and you would like to tell me about?

Ok! Thank you very much for taking the time to help me with this research. You've made some really useful & informative comments. I hope that I haven't taken too much of you time.





## **Children's Playgrounds Research** **Glasgow City Council Employees Information Sheet**

### **Why is this research being carried out?**

There are many potential health benefits of outdoor play, but there may be things that stop children gaining these health benefits. Children require a safe, pleasant and fun environment in which to play, and this is not always available. We are interested in children's and adult's views on play provision in Glasgow. We are interested in **your** experiences of playground use and misuse and also how you think the facilities could be improved.

### **How can you help?**

You are being invited to take part this research project. Before you decide whether or not to take part, it is important that you understand why the research is being carried out and what it will involve. Please take the time to read this information sheet and discuss it with others if you wish. You can ask us if there is anything that is not clear.

### **Why have you been chosen?**

You have been asked to take part because you maintain public playgrounds in Glasgow and we think that you will therefore have a good knowledge of such play facilities.

### **Do you have to take part?**

No, taking part is entirely voluntary. Additionally, if you change your mind once you have agreed to take part, you can withdraw at any time. All you have to do is let us know.

### **What will happen if you decide to take part?**

If you decide that you would like to help, you will be asked to take part in an informal interview. A researcher will arrange to meet you at a location and time convenient to you and ask you some questions about your opinions of playgrounds in Glasgow. You may be shown photographs of playgrounds and asked questions about them. The interview should not take longer than 45 minutes and, with your permission, will be recorded. If a greater number of maintenance employees respond than we have anticipated, then names will be picked from a hat, so that everyone has an equal chance of taking part. We will let you know if this happens.

### **What are the benefits of taking part?**

This is a research study. Although you will not benefit directly from helping us with this research, but it may help to widen our knowledge of outdoor play provision in Glasgow, and therefore help others. We hope to be able to suggest improvements to current play provision in Glasgow, and to inform policy makers, schools, playground designers and play workers of what adults and children think about outdoor play and playgrounds.

### **Who will know that you have taken part?**

Your involvement will be kept strictly confidential and only the research team will have access to the tapes and written copies of the interviews. We will not name you or any

## **Appendix R**

other people that you may talk about in the interview, or print your address in any of our reports.

### **What will happen to the results of the research study?**

We hope to write about our research in papers, published in scientific journals. We also hope to present the information at scientific conferences. We also hope to be able to suggest improvements to current provision and influence policy makers.

We may quote things that you say, but we will first remove anything that could reveal your identity.

### **Who is organising and funding the research?**

This project will be carried out by Chloé Hughes, a postgraduate student at the University of Glasgow, who is funded by the Chief Scientist Office at the Scottish Executive.

### **Who has approved the study?**

The research has been reviewed by the Law, Business & Social Science Ethics Committee at the University of Glasgow.

### **What to do next**

Thank you for taking the time to read this information. If you would like to take part in the research study, please fill in the consent form and return it in the envelope provided.

### **For further information:**

If you require any further information, please do not hesitate to contact any one of us at the details below:

**Chloe Hughes** – PhD Student

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow, 4 Lilybank Gardens, Glasgow, G12 8RZ.

**Telephone:** 0141 357 7536

**Email:** [chloe@msoc.mrc.gla.ac.uk](mailto:chloe@msoc.mrc.gla.ac.uk)

**Prof Sally Macintyre** – Unit Director

**Address:** MRC Social & Public Health Sciences Unit, University of Glasgow, 4 Lilybank Gardens, Glasgow, G12 8RZ.

**Telephone:** 0141 357 7550

**Email:** [sally@msoc.mrc.gla.ac.uk](mailto:sally@msoc.mrc.gla.ac.uk)

**Prof Nanette Mutrie** – Sport & Exercise Psychologist

**Address:** Department of Sport, Culture and the Arts, Strathclyde University (Jordanhill Campus), PESOE Building, 76 Southbrae Drive, Glasgow, G13 1PP.

**Telephone:** 0141 950 3371

**Email:** [nanette.mutrie@strath.ac.uk](mailto:nanette.mutrie@strath.ac.uk)



**CHILDREN'S OUTDOOR PLAYGROUND RESEARCH**

**ADULT CONSENT SHEET**

Please Tick this box

to confirm you agree

with the statement

☐

I confirm that I have read and understood the information sheet for the above study and that I have had the opportunity to ask any questions about it.

☐

I understand that quotations of what is discussed may be used in research publications or presentations (with any identifiable information removed) and I give my consent for this to occur.

☐

I agree to my interview being tape-recorded

☐

I understand that taking part in this research is entirely voluntary and that I can withdraw at any time.

I confirm that I would like to take part in this research.

.....

Name

.....

Signature

.....

Date